Table 1. AOPC 1: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

											SCE [b]			SCM Selection [d]			SCM Implementation and Effectiveness			
Site Name	**Potential Contaminant Migration Pathway**	**DEQ PM**	**ECSI #**	**River Mile**	**AOPC**	**AOPC COIs**	**Upland and Overwater COIs**	**Potential Upland and Overwater Sources**	**Site Priority Level**	**Initial Pathway Priority Level**	**Status of SCE**	**SCD [c]**	**SCE Findings and Next Steps**	**Status of SCM Selection**	**SCD**	**Next Steps and Schedule**	**Status of SCM Implementation and Effectiveness**	**SCD**	**Next Steps and Schedule**	**Post Construction Monitoring Results**
Sources Adjacent to AOPC 1 [e]																				
Evraz Oregon Steel Mills	Groundwater (UST & AST AOCs)	Sutter	141	2.2E	1	**Metals** (Cd, Cu, Hg, Zn), **total low PAHs, PCBs** (total PCBs, total PCB TEQ), **Dioxins** (total TEQ), **Pesticides** (2,4'-DDT, delta-HCH, total DDx), **BnOH**	TPH, metals	Former Ramsey Lake sump, riverbank fill area, stormwater collection system	High	Low	Complete (May 2006)	Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
Evraz Oregon Steel Mills	Groundwater (other AOCs)						TPH, metals			Low	Complete (May-06)	TBD	Groundwater migration results in concentrations similar to other transition zone water in Portland Harbor Site. Priority is low and DEQ considering no further action decision	Pending	Pending	DEQ preparing Source Control Determination, likely 2011	TBD	TBD	TBD	TBD
Evraz Oregon Steel Mills	Stormwater						PAHs, TPH, PCBs, metals			High	Complete (August 2006)	Complete Pathway	Source control action warranted	Complete (2006)	End of pipe treatment for central and northern outfalls (2007 to 2008)	SCD document finalized Fall 2010	Measures implemented, additional effectiveness evaluation 2010/2011	Ongoing	Public Review (2010)	Loading evaluation ongoing approved work plan (October 2009)
Evraz Oregon Steel Mills	Overwater Activities						NA			None	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Willamette Cove	Overland Transport						NA			NA	NA	NA	No pathway; berm prevents overland transport/sheet flow	NA	NA	NA	NA	NA	NA	NA
Evraz Oregon Steel Mills	Bank Erosion						PCBs, metals			High	Complete (May 2006)	Complete Pathway	Source control action warranted	Ongoing	Targeted removal and bank stabilization	Revised permit application to be submitted 4th Qtr. 2010	TBD	TBD	TBD	TBD
Ash Grove Cement (South Rivergate Industrial Park ECSI #2980)	Groundwater	Unassigned	2980	2.5 to 3.4E	1		NS	Storage tanks and manufacturing	Not tracked in Milestone Report. Low Priority based on initial DEQ site discovery efforts. Most stormwater is infiltrated onsite; stormwater discharges to the river under an individual NPDES permit. No additional information available.											
Ash Grove Cement (South Rivergate Industrial Park ECSI #2980)	Stormwater						NS													
Ash Grove Cement (South Rivergate Industrial Park ECSI #2980)	Overwater Activities						NS													
Ash Grove Cement (South Rivergate Industrial Park ECSI #2980)	Overland Transport						NS													
Ash Grove Cement (South Rivergate Industrial Park ECSI #2980)	Bank Erosion						NS													

Notes: See last page of table for full list of footnotes.

Table 1. AOPC 1: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

											SCE [b]			SCM Selection [d]			SCM Implementation and Effectiveness			
Site Name	**Potential Contaminant Migration Pathway**	**DEQ PM**	**ECSI #**	**River Mile**	**AOPC**	**AOPC COIs**	**Upland and Overwater COIs**	**Potential Upland and Overwater Sources**	**Site Priority Level**	**Initial Pathway Priority Level**	**Status of SCE**	**SCD [c]**	**SCE Findings and Next Steps**	**Status of SCM Selection**	**SCD**	**Next Steps and Schedule**	**Status of SCM Implementation and Effectiveness**	**SCD**	**Next Steps and Schedule**	**Post Construction Monitoring Results**
Shared Conveyance Systems																				
OF 53A	Stormwater	Tarnow	2425	2.8E	1	**Metals** (Cd, Cu, Hg, Zn), **total low PAHs**, **PCBs** (total PCBs, total PCB TEQ), **Dioxins** (total TEQ), **Pesticides** (2,4'-DDT, delta-HCH, total DDx), **BnOH**	PCBs, arsenic, zinc (City of Portland 2010)	Drains 82 acres of heavy industry. See below for identified sources.	Medium	p Medium	p Complete (2010)	p Complete Pathway	Sources of PCBs and metals identified at several active ECSI sites (see below)	Ongoing	BMP implementation through one 1200Z permit. One property implemented treatment per Stormwater Manual requirements. Onsite SCMs being implemented at ECSI sites (see below)	City conducting additional evaluation to confirm that all sources have been identified (4th Qtr. 2010)	Continue City MS4 and watershed SC programs to improve stormwater quality	TBD	TBD	TBD
Consolidated Metco	Stormwater	Romero	3295	2.8E	1		PAHs, TPH, PCBs, VOCs, metals, phthalates	Contaminated fill material, cutting fluid spills, catch basins and storm drains	Medium	Medium	Complete (Sept. 2008)	Complete Pathway	Subsurface soil infiltration to storm system. Stormwater system cleaning and repair	Ongoing	Cleaned sewer lines, lines repaired and post-IRAM monitoring plan ongoing,	Post-repair stormwater sampling ongoing, 2 of 3 performance monitoring samples collected, will be completed fall 2010	Ongoing	Estimated 2nd qtr 2011	Complete post repair performance monitoring Fall 2010.	TBD
Consolidated Metco	Groundwater Infiltration/City Storm Sewer [f]									Not investigated as separate pathway, covered under stormwater system investigation and system repairs										
Port of Portland Tract O	Stormwater	Kent	5307	2.8E	1		None reported	None	Not tracked in Milestone Report. NFA and Source Control Decision issued in July 2010. No source of significant contamination on the site and minimal if any stormwater discharge to river.											
Evraz Oregon Steel Mills	Stormwater	Sutter	141	2.2E	1		PCBs, metals	stormwater collection system	High	High	Complete (May 2006)	Complete Pathway	Source Control Action Warrented	Complete (2006)	BMPs including vegetated swales, sand filters, and infiltration; some flow redirected to end-of-pipe treatment system	SCD Document finalized Summer 2010	Measure implemented, additional effectiveness evaluation 2010/2011	Ongoing	Public Review (2010)	Loading evaluation ongoing approved work plan (October 2009)
JR Simplot (South Rivergate Industrial Park ECSI 2980)	Stormwater	Unassigned	3343	2.8E	1		NS	Warehouse storage and transfer of urea, truck storage and transfer of anhydrous ammonia, tank storage and transfer of diesel fuel, overwater transfer of urea, anhydrous ammonia, and diesel fuel	Not tracked in Milestone Report. Low Priority based on initial DEQ site discovery efforts. No additional information available.											
Ash Grove Cement (South Rivergate Industrial Park ECSI 2980)	Stormwater	Unassigned	2980	2.8E	1		None reported	Storage tanks and manufacturing	Not tracked in Milestone Report. Only small area adjacent to road sheet flows to Basin 53A; this area is not assocated with site industrial operations. Low Priority based on initial DEQ site discovery efforts. No additional information available.											

Notes: See last page of table for full list of footnotes.

3.6E

Table 1. AOPC 1: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

											SCE [b]			SCM Selection [d]			SCM Implementation and Effectiveness			
Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE	SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post Construction Monitoring Results

Notes:

[a] The information contained in this table is based on information obtained by LWG from correspondence with DEQ project managers and from reports in DEQ files as of ____ 2010. Information on sites upriver of RM 11 and sites within the shared stormwater conveyance systems is from RI Table 4.4-4 and from the DEQ ECSI database. Please note that source inventory is an ongoing process by DEQ and EPA, in the form of 104(e) information requests, and this is not a final list of sources that may be impacting the Study Area.

[b] SCE = Source Control Evaluation. This is the first step in DEQ's source evaluation process. The status of an SCE is either complete, ongoing, not started, TBD, or NA (for a pathway that is not applicable).

[c] SCD = Source Control Decision. DEQ provides EPA and its partners an opportunity to review (but not approve or disapprove) the DEQ SCD; the status of this review is described in the column, Status of EPA Review of SCE Decision, in the Milestone Report.

[d] SCM = Source Control Measures. The final step in the source evaluation process; the implementation status of the SCMs is either complete, ongoing, not started, TBD, or NA.

[e] Adjacent sites are those with potential sources/pathways that are immediately adjacent to the reference AOPC, and upstream sites are those potential sources/pathways that are upstream of the reference AOPC and not reference with any other AOPC.

[f] This pathway is included for ECSI sites that have groundwater infiltration into the City storm sewer. For sites without this pathway, assume there is no groundwater infiltration into the City storm sewer.

p = DEQ's preliminary pathway determination
? = Unknown, typically due to lack of sampling information
Italicized cells indicate upland sites within current or former CSO basins. Non-italicized text indicates upland sites within stormwater basins.
Grey shading indicates shared conveyances.

Reference Citations:

City of Portland. 2010. Stormwater Evaluation Report, City of Portland Outfall Project, ECSI 2425. City of Portland, OR. February, 2010.
DEQ. 2009. Portland Harbor Joint Source Control Strategy - Milestone Report. Prepared by the Oregon Department of Environmental Quality, Portland, OR. December, 2009.

Acronyms:

AOC = Administrative Order of Consent
AOPC = area of potential concern
AS/SVE = air sparging/soil vapor extraction
AST = aboveground storage tank
BEHP = bis-2-(ethylhexyl) phthalate
BMP = best management practices
BnOH = benzyl alcohol
COI = chemical of interest
CSO = combined sewer overflow
DEQ = Oregon Department Of Environmental Quality
DNAPL = dense non-aqueous phase liquid
ECSI = Environmental Cleanup Site Inventory
EE/CA = engineering evaluation/cost analysis
EIB = in situ bioremediation
EPA = Environmental Protection Agency
FS = feasibility study
GRH = gasoline-range hydrocarbon
GW = groundwater
JSCS = Joint Source Control Strategy
MS4 = municipal separate storm sewer systems
NA = not applicable
NAPL = non-aqueous phase liquid
NFA = no further action
NPDES = National Pollutant Discharge Elimination System
NS = no sampling of upland COIs reported. For stormwater/wastewater, no sampling beyond permit requirements reported.
ODOT = Oregon Department Of Transportation
OERS = Oregon Emergency Response System
PAH = polycyclic aromatic hydrocarbon
PCB = polyclorinated biphenyl
PM = project manager
POTW = publicly owned treatment works
PPA = Prospective Purchaser Agreement
RI = remedial investigation
ROD = record of decision
RP = responsible party
SVOC = semivolatile organic compound
SW = stormwater
SWPCP = stormwater pollution control plan
TBT - tributyl tin
TCE = trichloroethene
TPH = total petroleum hydrocarbon
UIC = underground injection control
UST = underground storage tank
VOC = volatile organic compound
XPA = expanded preliminary assessment

Table 2. AOPC 2: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
Sources Adjacent to AOPC 2 [e]											
Time Oil	Groundwater (Main Tank Farm Petroleum Plume)	Thiessen	170	3.4E	2	**Metals** (Cu, Hg), **BnOH**	VOCs, SVOCs, PAHs, TPH, metals	Former wood treatment formulation and storage area, former Main Terminal tank farm, former Bell Terminal tank farm, dock operations, waste oil handling and Storage (DEQ PM)	Medium	Medium (DEQ 2010 MS Rpt)	Revised SCE (anticipated 4th Qtr. 2010)
Time Oil	Groundwater (Bell Terminal Petroleum Plume)						VOCs, SVOCs, PAHs, TPH, metals			p Low	Revised SCE (anticipated 4th Qtr. 2010)
Time Oil	Groundwater (Penta Plume)						VOCs, SVOCs, PAHs, TPH, metals, PCP, dioxins/furans			Medium	Complete (Landau 2006)
Time Oil	Stormwater						PAHs, TPH, metals, PCP			p Low	SW SCE (anticipated 4th Qtr. 2010) (DEQ PM)
Time Oil	Overwater						NA			None	NA
Time Oil	Overland Transport						NA			None	Complete (Landau 2006)
Time Oil	Bank Erosion						PAHs, metals			p Low	Complete (Landau 2006)

Table 2. AOPC 2: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
Sources Upstream of AOPC 2 [e]											
Premier Edible Oils	See AOPC #3	Thiessen	2013								
Schnitzer Steel/Calbag Metals	See AOPC #3	Orr	2355								

Notes: See last page of table for full list of footnotes.

Table 2. AOPC 2: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE

Notes:

[a] The information contained in this table is based on information obtained by LWG from correspondence with DEQ project managers and from reports in DEQ files as of ____ 2010. Information on sites upriver of RM 11 and sites within the shared st form of 104(e) information requests, and this is not a final list of sources that may be impacting the Study Area.

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[c] SCD = Source Control Decision. DEQ provides EPA and its partners an opportunity to review (but not approve or disapprove) the DEQ SCD; the status of this review is described in the column, Status of EPA Review of SCE Decision, in the Milest

[d] SCM = Source Control Measures. The final step in the source evaluation process; the implementation status of the SCMs is either complete, ongoing, not started, TBD, or NA.

[e] Adjacent sites are those with potential sources/pathways that are immediately adjacent to the reference AOPC, and upstream sites are those potential sources/pathways that are upstream of the reference AOPC and not reference with any other AOPC

[f] This pathway is included for ECSI sites that have groundwater infiltration into the City storm sewer. For sites without this pathway, assume there is no groundwater infiltration into the City storm sewer.

p = DEQ's preliminary pathway determination
? = Unknown, typically due to lack of sampling information
Italicized cells indicate upland sites within current or former CSO basins. Non-italicized 3.6E
Grey shading indicates shared conveyances.

Reference Citations:

DEQ. 2009. Portland Harbor Joint Source Control Strategy - Milestone Report. Prepared by the Oregon Department of Environmental Quality, Portland, OR. December, 2009.
JBR. 2010. Letter to K. Thiessen, Oregon Department of Environmental Quality, Portland, OR re: Compilation of Bell Terminal Data, TOC Holdings Co., Northwest Terminal, Portland, OR. JBR Environmental Consultants, Inc., Sandy, UT. May 1
Landau. 2006. Source Control Evaluation, Time Oil Northwest Terminal, Portland, OR. Landau Inc., Portland, OR. June 21, 2006.

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AS/SVE = air sparging/soil vapor extraction
AST = aboveground storage tank
BEHP = bis-2-(ethylhexyl) phthalate
BMP = best management practices
BnOH = benzyl alcohol
COI = chemical of interest
CSO = combined sewer overflow
DEQ = Oregon Department Of Environmental Quality
DNAPL = dense non-aqueous phase liquid
ECSI = Environmental Cleanup Site Inventory
EE/CA = engineering evaluation/cost analysis
EIB = in situ bioremediation
EPA = Environmental Protection Agency
FS = feasibility study
GRH = gasoline-range hydrocarbon
GW = groundwater
JSCS = Joint Source Control Strategy
MS4 = municipal separate storm sewer systems
NA = not applicable
NAPL = non-aqueous phase liquid
NFA = no further action
NPDES = National Pollutant Discharge Elimination System
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OERS = Oregon Emergency Response System
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PCB = polyclorinated biphenyl
PM = project manager
POTW = publicly owned treatment works
PPA = Prospective Purchaser Agreement
RI = remedial investigation
ROD = record of decision
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SW = stormwater
SWPCP = stormwater pollution control plan
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TCE = trichloroethene
TPH = total petroleum hydrocarbon
UIC = underground injection control
UST = underground storage tank
VOC = volatile organic compound
XPA = expanded preliminary assessment

Table 2. AOPC 2: Status of Adjacent or Immediately Upstre

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Sources Adjacent to AOPC 2 [e]										
Time Oil	Groundwater (Main Tank Farm Petroleum Plume)	Complete (DEQ MS Rpt 2010)	Waiting on revised SCE to be completed 4Q2010 (DEQ PM)	Ongoing	Tank removal completed Summer 2009. Interim passive NAPL recovery ongoing	Soil removal action planned (Fall 2010); Ongoing quarterly groundwater monitoring of beach wells	Ongoing	TBD	TBD	TBD
Time Oil	Groundwater (Bell Terminal Petroleum Plume)	Incomplete Pathway (JBR 2010)	Waiting on revised SCE to be completed 4Q2010 (DEQ PM)	Ongoing	Tank removal completed Summer 2009	Soil removal action planned (Fall 2010)	Ongoing	TBD	TBD	TBD
Time Oil	Groundwater (Penta Plume)	Incomplete Pathway (Landau 2006)	SCMs retard penta migration and prevent penta discharge to private stormwater outfall	Complete	Source area pump & treat, in situ chemical oxidation (ISCO), GW to SW intercept pump & treat	Ongoing GW pump & treat, evaluation of ISCO effectiveness–TBD, other remediation methods for plume area being assessed	Ongoing	Ongoing (long-term SCMs)	Ongoing maintenance and monitoring of pump and treat system	SCMs retard penta migration and prevent discharge to private SW outfall
Time Oil	Stormwater	Complete Pathway	SCM/IRM intercepts and remediates SW prior to discharge (DEQ PM)	Ongoing	TBD	Complete stormwater charaterization SCE (anticipated 4Q2010 (DEQ PM)	ongoing	Ongoing (long-term SCMs)	Ongoing maintenance and monitoring of SW SCE system (DEQ PM)	Ongoing maintenance and monitoring of SW SCE system (DEQ PM)
Time Oil	Overwater	NA	NA	NA	NA	NA	NA	NA	NA	NA
Time Oil	Overland Transport	Incomplete Pathway	N/A	NA	NA	NA	NA	NA	NA	NA
Time Oil	Bank Erosion	Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA

Table 2. AOPC 2: Status of Adjacent or Immediately Upstre

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Sources Upstream of AOPC 2 [e]										
Premier Edible Oils	See AOPC #3									
Schnitzer Steel/Calbag Metals	See AOPC #3									

Notes: See last page of table for full list of footnotes.

Table 2. AOPC 2: Status of Adjacent or Immediately Upstre

		SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
Site Name	**Potential Contaminant Migration Pathway**	**SCD [c]**	**SCE Findings and Next Steps**	**Status of SCM Selection**	**SCD**	**Next Steps and Schedule**	**Status of SCM Implementation and Effectiveness**	**SCD**	**Next Steps and Schedule**	**Post-Construction Monitoring Results**

Notes:

[a] ~~The information contained in this table is based on informati~~ormwater conveyance systems is from RI Table 4.4-4 and from the DEQ ECSI database. Please note that source inventory is an ongoing process by DEQ and EPA, in the form of 104(e) information requests, and this is not a final list

[b] SCE = Source Control Evaluation. This is the first step in DE

[c] SCD = Source Control Decision. DEQ provides EPA and its one Report.

[d] SCM = Source Control Measures. The final step in the sourc

[e] Adjacent sites are those with potential sources/pathways that .

[f] This pathway is included for ECSI sites that have groundwate

p = DEQ's preliminary pathway determination
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Reference Citations:

DEQ. 2009. Portland Harbor Joint Source Control Strategy -
JBR. 2010. Letter to K. Thiessen, Oregon Department of Env4
Landau. 2006. Source Control Evaluation, Time Oil Northwe

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BEHP = bis-2-(ethylhexyl) phthalate
BMP = best management practices
BnOH = benzyl alcohol
COI = chemical of interest
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ECSI = Environmental Cleanup Site Inventory
EE/CA = engineering evaluation/cost analysis
EIB = in situ bioremediation
EPA = Environmental Protection Agency
FS = feasibility study
GRH = gasoline-range hydrocarbon
GW = groundwater
JSCS = Joint Source Control Strategy
MS4 = municipal separate storm sewer systems
NA = not applicable
NAPL = non-aqueous phase liquid
NFA = no further action

Table 3. AOPC 3: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
Sources Adjacent to AOPC 3 [c]											
Schnitzer Burgard Industrial Park	Groundwater	Orr	~~2356~~ 5324	3.8E	3	**Metals** (As Cd, Cu, Hg, Zn), **TBT**, **total low PAHs**, **SVOCs** (BnOH, phenol), **total PCBs**, **Pesticides** (4,4'-DDT, delta-HCH, endrin ketone, total DDx)	VOCs, TPH, metals	~~Former NW Oil Co. tanks, former sanitary sewer and stormwater discharges, former shipyard shipways, ASR on ground surface, storm drains and outfalls, over-water activities; former ASTs and USTs~~ Heavy Industrial stormwater dischagres to common storm water system and outfall at Schnitzer Steel Industrial Slip	p High	p Medium	Ongoing ~~(need anticipated date)~~ 4th Qt. 2011
Schnitzer Burgard Industrial Park	Stormwater						VOCs, TPH, PCBs, metals			p High	Ongoing ~~(need anticipated date)~~ 4th Qt. 2011
Schnitzer Burgard Industrial Park	Overwater Activities						TPH, metals			None	NA
Schnitzer Burgard Industrial Park	Overland Transport						VOCs, TPH, PCBs, metals			p High	Ongoing ~~(need anticipated date)~~ 4th Qt. 2011
Schnitzer Burgard Industrial Park	Bank Erosion						PAHs, TPH, PCBs, metals			None	NA
Schnitzer Steel~~/Calbag Metals~~	Groundwater	Orr	2355	4E	3		VOCs, TPH, metals	Former NW Oil Co. tanks, former sanitary sewer and stormwater discharges, former shipyard shipways, ASR on ground surface, storm drains and outfalls, over-water activities	p High	p Medium	Ongoing ~~(need anticipated date)~~ 4th Qt. 2011
Schnitzer Steel~~/Calbag Metals~~	Stormwater						VOCs, TPH, PCBs, metals			p High	Ongoing ~~(need anticipated date)~~ 4th Qt. 2011
Schnitzer Steel~~/Calbag Metals~~	Overwater Activities						VOCs, PAHs, TPH, metals			p Medium	Ongoing ~~(need anticipated date)~~ 4th Qt. 2011
Schnitzer Steel~~/Calbag Metals~~	Overland Transport						N/S			p High	Ongoing ~~(need anticipated date)~~ 4th Qt. 2011
Schnitzer Steel~~/Calbag Metals~~	Bank Erosion						PAHs, TPH, PCBs, metals			p Medium	Ongoing ~~(need anticipated date)~~ 4th Qt. 2011

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
Schnitzer Steel~~/Calbag Metals~~	Air Deposition						?			p Medium	Ongoing ~~(need anticipated date)~~ 4th Qt. 2011
NW Pipe	Groundwater	Orr	138	3.9E	3		VOCs, PAHs, TPH	ASTs and 55-gallon drums, pipe lining and coating building, transformer storage area, asphalt dipper tank, industrial well, dust suppressant use, alleged solvent and petroleum dumping areas, catch basins and storm drains	p Medium	None	Ongoing (SCE report in revision; scheduled completion Winter 2011)
NW Pipe	Stormwater						VOCs, PAHs, TPH, PCBs, metals			p Medium	Ongoing (SCE report in revision; scheduled completion Winter 2011)
NW Pipe	Overwater Activities						NA			None	NA
NW Pipe	Overland Transport						NA			None	NA
NW Pipe	Bank Erosion						NA			None	NA
Jefferson Smurfit	Groundwater	McClincy	2371	3.7E	3		NS	Former fuel ASTs and USTs, stormwater outfalls	NFA, Low	Low	Complete (6/21/2004 per ECSI)
Jefferson Smurfit	Stormwater						TPH, metals			Low	Complete (6/21//2004 per ECSI)
Jefferson Smurfit	Overwater Activities						NA			None	NA

Notes: See last page of table for full list of footnotes.

Jefferson Smurfit	Overland Transport	McClincy	2371	3.7E	3		NA	Former fuel ASTs and USTs, stormwater outfalls	NFA, Low	None	NA
Jefferson Smurfit	Bank Erosion						NA			None	NA
Premier Edible Oils	Groundwater (GW LNAPL -SW Corner)						VOCs, SVOCs, PAHs, TPH, PCBs, metals, phthalates			p High	DEQ to respond to WP outline Oct. 2010 (DEQ PM)

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
Premier Edible Oils	Groundwater (Remaining GW Issues)	Thiessen	2013	3.6E	3	**Metals** (As Cd, Cu, Hg, Zn), **TBT**, **total low PAHs**, **SVOCs** (BnOH, phenol), **total PCBs**, **Pesticides** (4,4'-DDT, delta-HCH, endrin ketone, total DDx)	VOCs, SVOCs, PAHs, TPH, PCBs, metals, phthalates	Near-surface and smear zone contaminanted soil in the following areas: 1) former NW Oil Company tank farm, 2) southern shoreline, 3) vicinity of former PEO diesel USTs, 4) WWTP, 5) former process buildings and truck-loading area; historical outfalls, contaminated GW and NAPL at so. shoreline (DEQ PM)	p High	Low	Ongoing as part of RI (DEQ PM)
Premier Edible Oils	Stormwater						VOCs, PAHs, TPH, metals			UNK (DEQ PM)	DEQ to respond to SW initial eval. WP Oct. 2010 (DEQ PM)
Premier Edible Oils	Overwater Activities						NA			None	NA
Premier Edible Oils	Overland Transport						VOCs, PAHs, TPH			p Low	DEQ to respond to WP Oct. 2010 (DEQ PM)
Premier Edible Oils	Bank Erosion						VOCs, PAHs, TPH			p Low	DEQ to respond to WP Oct. 2010 (DEQ PM)
POP Terminal 4, Slip 1	Groundwater	Gainer	2356	4.3E	3		PAHs, metals	Current facility operations.	p Medium	p Low	Complete (August 2007)
POP Terminal 4, Slip 1	Stormwater						PAHs, TPH, pesticides, PCBs, metals, phthalates			p Medium	Complete (September 2009)
POP Terminal 4, Slip 1	Overwater Activities									None	NA
POP Terminal 4, Slip 1	Overland Transport									None	NA
POP Terminal 4, Slip 1	Bank Erosion						NA			High	Complete (August 2007)

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE

Notes: See last page of table for full list of footnotes.

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
Shared Conveyance Systems											
WR-123	Stormwater	Tarnow	NA	3.8E	3	**Metals** (As Cd, Cu, Hg, Zn), **TBT**, **total low PAHs**, **SVOCs** (BnOH, phenol), **total PCBs**, **Pesticides** (4,4'-DDT, delta-HCH, endrin ketone, total DDx)	PCBs, Metals, PAHs, pesticides, phthalates	Several industrial sites; ECSI sites below make up majority of basin. Includes small portion of ECSI 176 that will be diverted to Slough (expected 2011)	pHigh	pHigh	See ECSI sites below
NW Pipe	Stormwater	Orr	138	3.9E	3		~~VOCs, PAHs,~~ TPH, PCBs, ~~metals~~	See above	p Medium	p Medium	~~Ongoing (SCE~~ report in revision; ~~scheduled~~
Boydstun Metal Works	Stormwater	NA	2362	4.1E	3		PAHs, PCBs, metals	Oil storage areas, contaminated soils, stormwater outfall, unknown source			~~Not tracked in I~~
Joseph Ryerson [Lampros Steel]	Stormwater	NA	2441	4.1E	3		None listed	Historical stormwater trench to slip, USTs	pLow	pLow	Currently in discusisons with RP to sign a Letter Agreement for SW SCE
~~WR-124~~	Stormwater	NA	NA	3.8E	3						WR-124
~~NW Pipe (Jim - not sure if this belongs here (KT))~~	~~Stormwater~~	~~Orr~~	~~138~~	~~3.9E~~	~~3~~		~~VOCs, PAHs, TPH, PCBs, metals~~	~~See above~~	~~p Medium~~	~~p Medium~~	~~Ongoing (SCE report in revision; scheduled~~
~~Schnitzer/Calbag~~	~~Stormwater~~	~~Orr~~	~~2355~~	~~3.8E~~	~~3~~		~~VOCs, TPH, PCBs, metals~~	~~See above~~	~~p High~~	~~p High~~	~~Ongoing (need anticipated date)~~
~~WR-121~~	Stormwater	NA	NA	3.8E	3						
~~Schnitzer/Calbag~~	~~Stormwater~~	~~Orr~~	~~2355~~	~~3.8E~~	~~3~~		~~VOCs, TPH, PCBs, metals~~	~~See above~~	~~p High~~	~~p High~~	~~Ongoing (need anticipated date)~~
WR-83	Stormwater	NA	NA	3.7E	3		?	Drainage basin consists of runoff from 2 ECSI sites, see below 6 acres (heavy industrial)			
Jefferson Smurfit			2371					See info above			
Premier Edible Oils			2013					See info above			
WR-84	Stormwater	NA	NA	3.7E	3		?	Drainage basin consists of runoff from 3 ECSI sites; see below **(14 acres heavy industrial)**			
Schnitzer Burgard Industrial Park			5324					see above			
Time Oil			170					see AOPC 2			
Premier Edible Oils			2013					See above; site known to discharge to this outfall			
Sources Upstream of AOPC 3 [e]											
Terminal 4, Slip 1	See AOPC #6	Gainer	2356								

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
Terminal 4, Slip 3	See AOPC #6	Gainer	272								

Notes: See last page of table for full list of footnotes.

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE

Notes:

[a] The information contained in this table is based on information obtained by LWG from correspondence with DEQ project managers and from reports in DEQ files as of ____ 2010. Information on sites upriver of RM 11 and sites within the shared stor form of 104(e) information requests, and this is not a final list of sources that may be impacting the Study Area.

[b] SCE = Source Control Evaluation. This is the first step in DEQ's source evaluation process. The status of an SCE is either complete, ongoing, not started, TBD, or NA (for a pathway that is not applicable).

[c] SCD = Source Control Decision. DEQ provides EPA and its partners an opportunity to review (but not approve or disapprove) the DEQ SCD; the status of this review is described in the column, Status of EPA Review of SCE Decision, in the Milestor

[d] SCM = Source Control Measures. The final step in the source evaluation process; the implementation status of the SCMs is either complete, ongoing, not started, TBD, or NA.

[e] Adjacent sites are those with potential sources/pathways that are immediately adjacent to the reference AOPC, and upstream sites are those potential sources/pathways that are upstream of the reference AOPC and not reference with any other AOPC.

[f] This pathway is included for ECSI sites that have groundwater infiltration into the City storm sewer. For sites without this pathway, assume there is no groundwater infiltration into the City storm sewer.

p = DEQ's preliminary pathway determination
? = Unknown, typically due to lack of sampling information
Italicized cells indicate upland sites within current or former CSO basins. Non-italicized text indicates upland sites within stormwater basins.
Grey shading indicates shared conveyances.

Reference Citations:

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AST = aboveground storage tank
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BMP = best management practices
BnOH = benzyl alcohol
COI = chemical of interest
CSO = combined sewer overflow
DEQ = Oregon Department Of Environmental Quality
DNAPL = dense non-aqueous phase liquid
ECSI = Environmental Cleanup Site Inventory
EE/CA = engineering evaluation/cost analysis
EIB = in situ bioremediation
EPA = Environmental Protection Agency
FS = feasibility study
GRH = gasoline-range hydrocarbon
GW = groundwater
JSCS = Joint Source Control Strategy
MS4 = municipal separate storm sewer systems
NA = not applicable
NAPL = non-aqueous phase liquid
NFA = no further action
NPDES = National Pollutant Discharge Elimination System
NS = no sampling of upland COIs reported. For stormwater/wastewater, no sampling beyond permit requirements reported.
ODOT = Oregon Department Of Transportation
OERS = Oregon Emergency Response System
PAH = polycyclic aromatic hydrocarbon
PCB = polyclorinated biphenyl
PM = project manager
POTW = publicly owned treatment works
PPA = Prospective Purchaser Agreement
RI = remedial investigation
ROD = record of decision
RP = responsible party
SVOC = semivolatile organic compound
SW = stormwater
SWPCP = stormwater pollution control plan
TBT - tributyl tin
TCE = trichloroethene
TPH = total petroleum hydrocarbon
UIC = underground injection control
UST = underground storage tank
VOC = volatile organic compound
XPA = expanded preliminary assessment

Table 3. AOPC 3: Status of Adjacent or Immediately Upstre

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Sources Adjacent to AOPC 3 [e]										
Schnitzer Burgard Industrial Park	Groundwater	TBD (waiting on SCE to be completed	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Schnitzer Burgard Industrial Park	Stormwater	TBD (waiting on SCE to be completed	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Schnitzer Burgard Industrial Park	Overwater Activities	NA	NA	NA	NA	NA	NA	NA	NA	NA
Schnitzer Burgard Industrial Park	Overland Transport	TBD (waiting on SCE to be completed	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Schnitzer Burgard Industrial Park	Bank Erosion	NA	NA	NA	NA	NA	NA	NA	NA	NA
Schnitzer Steel/~~Calbag Metals~~	Groundwater	TBD (waiting on SCE to be completed	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Schnitzer Steel/~~Calbag Metals~~	Stormwater	TBD (Waiting on SCE to be completed)	Ongoing monitoring and engineering improvements	TBD	Significant stormwater upgrade began in Summer 2009 and continues	Ongoing monitoring and engineering improvements through 2011	Ongoing monitoring and engineering improvements through 2011	TBD	TBD	TBD
Schnitzer Steel/~~Calbag Metals~~	Overwater Activities	TBD (Waiting on SCE to be completed)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Schnitzer Steel/~~Calbag Metals~~	Overland Transport	TBD (Waiting on SCE to be completed)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Schnitzer Steel/~~Calbag Metals~~	Bank Erosion	TBD (Waiting on SCE to be completed)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Schnitzer Steel~~/Calbag Metals~~	Air Deposition	TBD (Waiting on SCE to be completed)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
NW Pipe	Groundwater	Incomplete Pathway	NA	NA	NA	NA	NA	NA	NA	NA
NW Pipe	Stormwater	p Complete Pathway	Stormwater is a suspected migration pathway	TBD	TBD	TBD	TBD	TBD	TBD	TBD
NW Pipe	Overwater Activities	NA	NA	NA	NA	NA	NA	NA	NA	NA
NW Pipe	Overland Transport	NA	NA	NA	NA	NA	NA	NA	NA	NA
NW Pipe	Bank Erosion	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jefferson Smurfit	Groundwater	Insignificant Pathway	No actions recommended; no SCMs needed	NA	NA	NA	NA	NA	NA	NA
Jefferson Smurfit	Stormwater	Insignificant Pathway	No actions recommended; no SCMs needed	NA	NA	NA	NA	NA	NA	NA
Jefferson Smurfit	Overwater Activities	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes: See last page of table for full list of footnotes.

Jefferson Smurfit	Overland Transport	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jefferson Smurfit	Bank Erosion	NA	NA	NA	NA	NA	NA	NA	NA	NA
Premier Edible Oils	Groundwater (GW LNAPL -SW Corner)	Complete Pathway	Draft IRM outline submitted Oct. 2010 (DEQ PM)	Ongoing (draft IRM outline under review) (DEQ PM)	Initial planning in progress	DEQ to respond to Oct. 2010 WP (DEQ PM)	TBD	TBD	TBD	TBD

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Premier Edible Oils	Groundwater (Remaining GW Issues)	Insignificant Pathway	Dissolved contaminants in GW unlikely to be a source control concern	Ongoing as part of upland RI (DEQ PM)	TBD, Waiting on final SCE (DEQ PM)	TBD	TBD	TBD	TBD	TBD
Premier Edible Oils	Stormwater	Complete Pathway (DEQ PM)	TBD, Waiting on final SCE (DEQ PM)	TBD	Catch basin sampling; stormwater evaluation to Int'l slip outfall WR-83 proposed in Oct 2010 (DEQ PM)	DEQ to respond to Oct. 2010 WP (DEQ PM)	TBD	TBD	TBD	TBD
Premier Edible Oils	Overwater Activities	NA	NA	NA	NA	NA	NA	NA	NA	NA
Premier Edible Oils	Overland Transport	Insufficient data (DEQ PM)	TBD	TBD	TBD	DEQ to respond to Oct. 2010 WP (DEQ PM)	TBD	TBD	TBD	TBD
Premier Edible Oils	Bank Erosion	Insufficient data (DEQ PM)	TBD	TBD	TBD	DEQ to respond to Oct. 2010 WP (DEQ PM)	TBD	TBD	TBD	TBD
POP Terminal 4, Slip 1	Groundwater	p Insignificant Pathway	Preliminary determination that pathway is insignificant	TBD, Pending EPA review	TBD	TBD	NA	NA	NA	NA
POP Terminal 4, Slip 1	Stormwater	TBD	SCM planned	Complete (9/09)	SW pipes cleanout (Summer 2010)	NA	Complete	Effectiveness monitoriing (June 2011)	TBD	TBD
POP Terminal 4, Slip 1	Overwater Activities	No known current sources (spills reported to OERS)	NA	NA	NA	NA	NA	NA	NA	NA
POP Terminal 4, Slip 1	Overland Transport	NA	NA	NA	NA	NA	NA	NA	NA	NA
POP Terminal 4, Slip 1	Bank Erosion	Complete Pathway	SCM necessary, coordinate with T4 Early Action	Complete (February 2007)	Wheeler Bay regraded and capped, Fall 2008	Tied to T4 Early Action	Completed October 2008	Periodic inspection and maintenance	NA	NA

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results

Notes: See last page of table for full list of footnotes.

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Shared Conveyance Systems										
WR-123	Stormwater	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
NW Pipe	Stormwater	p Complete Pathway	Stormwater is a suspected	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Boydstun Metal Works	Stormwater	Milestone Report (additional information requested) Jim Orr - part of BIP SCE? Will be evaluated as Part of ECSI #5324 SBIP								
Joseph Ryerson [Lampros Steel]	Stormwater	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
~~WR-124~~	Stormwater	4 being addressed as part of ECSI 2355 investigation								TBD
~~NW Pipe (Jim - not sure if this belongs here (KT))~~	~~Stormwater~~	~~p Complete Pathway~~	~~Stormwater is a suspected~~	~~TBD~~	~~TBD~~	~~TBD~~	~~TBD~~	~~TBD~~	~~TBD~~	~~TBD~~
~~Schnitzer/Calbag~~	~~Stormwater~~	~~TBD (waiting on SCE to be completed~~	~~TBD~~	~~TBD~~	~~TBD~~	~~TBD~~	~~TBD~~	~~TBD~~	~~TBD~~	~~TBD~~
~~WR-121~~	Stormwater	WR-124 being addressed as part of ECSI 2355 investigation								
~~Schnitzer/Calbag~~	~~Stormwater~~	~~TBD (waiting on SCE to be completed~~	~~TBD~~	~~TBD~~	~~TBD~~	~~TBD~~	~~TBD~~	~~TBD~~	~~TBD~~	~~TBD~~
WR-83	Stormwater									
Jefferson Smurfit										
Premier Edible Oils										
WR-84	Stormwater									
Schnitzer Burgard Industrial Park										
Time Oil										
Premier Edible Oils										
Sources Upstream of AOPC 3 [e]										
Terminal 4, Slip 1	See AOPC #6									

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Terminal 4, Slip 3	See AOPC #6									

Notes: See last page of table for full list of footnotes.

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results

Notes:

[a] ~~The information contained in this table is based on information~~water conveyance systems is from RI Table 4.4-4 and from the DEQ ECSI database. Please note that source inventory is an ongoing process by DEQ and EPA, in the form of 104(e) information requests, and this is not a final list

[b] SCE = Source Control Evaluation. This is the first step in DE

[c] SCD = Source Control Decision. DEQ provides EPA and its Report.

[d] SCM = Source Control Measures. The final step in the sourc

[e] Adjacent sites are those with potential sources/pathways that

[f] This pathway is included for ECSI sites that have groundwate

p = DEQ's preliminary pathway determination
? = Unknown, typically due to lack of sampling information
Italicized cells indicate upland sites within current or former C
Grey shading indicates shared conveyances.

Reference Citations:

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AOC = Administrative Order of Consent
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BEHP = bis-2-(ethylhexyl) phthalate
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BnOH = benzyl alcohol
COI = chemical of interest
CSO = combined sewer overflow
DEQ = Oregon Department Of Environmental Quality
DNAPL = dense non-aqueous phase liquid
ECSI = Environmental Cleanup Site Inventory
EE/CA = engineering evaluation/cost analysis
EIB = in situ bioremediation
EPA = Environmental Protection Agency
FS = feasibility study
GRH = gasoline-range hydrocarbon
GW = groundwater
JSCS = Joint Source Control Strategy
MS4 = municipal separate storm sewer systems
NA = not applicable
NAPL = non-aqueous phase liquid
NFA = no further action

Table 4. AOPC 4: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
Sources Adjacent to AOPC 4 [e]											
Owens Corning Linnton	Groundwater	Rapp	1036	3.8W	4	**Metals** (Cu, Hg), **total low PAHs, BnOH**	NS	Historical releases in pole barn storage area, former wood-processing area, former UST, process area releases in northern portion, historic releases during product unloading at dock	p Low	p Low	DEQ currently reviewing SCE
Owens Corning Linnton	Stormwater						None			p Low	DEQ currently reviewing SCE
Owens Corning Linnton	Overwater Activities						NA			None	NA
Owens Corning Linnton	Overland Transport						PAHs,TPH			p Low	DEQ currently reviewing SCE
Willamette Cove	Bank Erosion						PAHs,TPH			p Low	DEQ currently reviewing SCE
Georgia Pacific Linnton	Groundwater	Gainer	2370	3.5W	4		VOCs, PAHs	Gasoline UST and soil remediation pile, ASTs, former ACF site, former wood-treating plant, former Linnton Oil fire training grounds, dock and former overwater fueling	NFA, Low	Low	Complete (October 2000)
Georgia Pacific Linnton	Stormwater						VOCs, PAHs, TPH			None	NA
Georgia Pacific Linnton	Overwater Activities						NS			None	NA
Georgia Pacific Linnton	Overland Transport						NS			Low	Complete (October 2000)
Georgia Pacific Linnton	Bank Erosion						NA			NA	NA
Shared Conveyance Systems											
WR-79	Stormwater	NA	NA	3.8W	4	**Metals** (Cu, Hg), **total low PAHs**, **BnOH**	?	Unknown active multiparty outfall; basin has not been delineated, possibly some highway drainage	TBD	TBD	TBD

Table 4. AOPC 4: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
Sources Upstream of AOPC 4 [e]											
Kinder Morgan	See AOPC #5	Romero	1096								

Notes: See last page of table for full list of footnotes.

Table 4. AOPC 4: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE

Notes:

[a] The information contained in this table is based on information obtained by LWG from correspondence with DEQ project managers and from reports in DEQ files as of ____ 2010. Information on sites upriver of RM 11 and sites within the shared st form of 104(e) information requests, and this is not a final list of sources that may be impacting the Study Area.

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[d] SCM = Source Control Measures. The final step in the source evaluation process; the implementation status of the SCMs is either complete, ongoing, not started, TBD, or NA.

[e] Adjacent sites are those with potential sources/pathways that are immediately adjacent to the reference AOPC, and upstream sites are those potential sources/pathways that are upstream of the reference AOPC and not reference with any other AOPC

[f] This pathway is included for ECSI sites that have groundwater infiltration into the City s 3.6E

p = DEQ's preliminary pathway determination
? = Unknown, typically due to lack of sampling information
Italicized cells indicate upland sites within current or former CSO basins. Non-italicized text indicates upland sites within stormwater basins.
Grey shading indicates shared conveyances.

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BMP = best management practices
BnOH = benzyl alcohol
COI = chemical of interest
CSO = combined sewer overflow
DEQ = Oregon Department Of Environmental Quality
DNAPL = dense non-aqueous phase liquid
ECSI = Environmental Cleanup Site Inventory
EE/CA = engineering evaluation/cost analysis
EIB = in situ bioremediation
EPA = Environmental Protection Agency
FS = feasibility study
GRH = gasoline-range hydrocarbon
GW = groundwater
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SWPCP = stormwater pollution control plan
TBT - tributyl tin
TCE = trichloroethene
TPH = total petroleum hydrocarbon
UIC = underground injection control
UST = underground storage tank
VOC = volatile organic compound
XPA = expanded preliminary assessment

Table 4. AOPC 4: Status of Adjacent or Immediately Upstre

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Sources Adjacent to AOPC 4 [e]										
Owens Corning Linnton	Groundwater	Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
Owens Corning Linnton	Stormwater	TBD (waiting on SCE to be completed)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Owens Corning Linnton	Overwater Activities	NA	NA	NA	NA	NA	NA	NA	NA	NA
Owens Corning Linnton	Overland Transport	Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
Willamette Cove	Bank Erosion	Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
Georgia Pacific Linnton	Groundwater	Insignificant Pathway (DEQ considers groundwater pathway not fully characterized, but not a high priority)	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
Georgia Pacific Linnton	Stormwater	NA	NA	NA	NA	NA	NA	NA	NA	NA
Georgia Pacific Linnton	Overwater Activities	No known current sources (spills reported to OERS)	NA	NA	NA	NA	NA	NA	NA	NA
Georgia Pacific Linnton	Overland Transport	Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
Georgia Pacific Linnton	Bank Erosion	NA								
Shared Conveyance Systems										
WR-79	Stormwater	TBD	Status of Basin-wide Investigation? Additional Outfall and Up-the-Pipe Investigations?	TBD	Outfall SCM Controls being Designed, Constructed, or Monitored?	TBD	TBD	TBD	TBD	TBD

Table 4. AOPC 4: Status of Adjacent or Immediately Upstre

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Sources Upstream of AOPC 4 [e]										
Kinder Morgan	See AOPC #5									

Notes: See last page of table for full list of footnotes.

Table 4. AOPC 4: Status of Adjacent or Immediately Upstre

		SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
Site Name	**Potential Contaminant Migration Pathway**	**SCD [c]**	**SCE Findings and Next Steps**	**Status of SCM Selection**	**SCD**	**Next Steps and Schedule**	**Status of SCM Implementation and Effectiveness**	**SCD**	**Next Steps and Schedule**	**Post-Construction Monitoring Results**

Notes:

[a] ~~The information contained in this table is based on informati~~ormwater conveyance systems is from RI Table 4.4-4 and from the DEQ ECSI database. Please note that source inventory is an ongoing process by DEQ and EPA, in the form of 104(e) information requests, and this is not a final list

[b] SCE = Source Control Evaluation. This is the first step in DE

[c] SCD = Source Control Decision. DEQ provides EPA and its one Report.

[d] SCM = Source Control Measures. The final step in the sourc

[e] Adjacent sites are those with potential sources/pathways that .

[f] This pathway is included for ECSI sites that have groundwate

p = DEQ's preliminary pathway determination
? = Unknown, typically due to lack of sampling information
Italicized cells indicate upland sites within current or former (
Grey shading indicates shared conveyances.

Reference Citations:

DEQ. 2009. Portland Harbor Joint Source Control Strategy -

Acronyms:

AOC = Administrative Order of Consent
AOPC = area of potential concern
AS/SVE = air sparging/soil vapor extraction
AST = aboveground storage tank
BEHP = bis-2-(ethylhexyl) phthalate
BMP = best management practices
BnOH = benzyl alcohol
COI = chemical of interest
CSO = combined sewer overflow
DEQ = Oregon Department Of Environmental Quality
DNAPL = dense non-aqueous phase liquid
ECSI = Environmental Cleanup Site Inventory
EE/CA = engineering evaluation/cost analysis
EIB = in situ bioremediation
EPA = Environmental Protection Agency
FS = feasibility study
GRH = gasoline-range hydrocarbon
GW = groundwater
JSCS = Joint Source Control Strategy
MS4 = municipal separate storm sewer systems
NA = not applicable
NAPL = non-aqueous phase liquid
NFA = no further action

Table 5. AOPC 5: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
Sources Adjacent to AOPC 5 [e]											
Linnton Plywood/CRSG	Groundwater	McClincy	2373, 2351	4.6W	5	**Metals** (Al, Ba, Cd, Cu, Fe, Mn, Hg, Zn), **total low PAHs, Pesticides** (4,4'-DDT, delta-HCH, Total DDx), **BnOH**, **GRH**	TPH, metals, phthalates	Eroded bank at maintenace shop area; private outfalls, tug and barge operations at CRSG and historical log operations	NFA, Low	Low	Complete (5/7/2004 - ECSI SCD)
Linnton Plywood/CRSG	Stormwater						VOCs, SVOCs, PAHs, TPH, PCBs, metals, phthalates			Low	Complete (5/7/2004 - ECSI SCD)
Linnton Plywood/CRSG	Overwater Activities						TPH, metals			Low	Complete (5/7/2004 - ECSI SCD)
Linnton Plywood/CRSG	Overland Transport						PAHs, TPH, PCBs, metals			Low	Complete (5/7/2004 - ECSI SCD)
Willamette Cove	Bank Erosion						TPH, metals			Low	Complete (5/7/2004 - ECSI SCD)
Kinder Morgan	Groundwater	Romero	1096	4.2W	5		VOCs, PAHs, TPH, metals	Petroleum fuel storage areas, dock operations	p High	p High	Ongoing (anticipated 2nd Qtr. 2011)
Kinder Morgan	Stormwater						VOCs, PAHs, TPH, metals			Medium	Complete
Kinder Morgan	Overwater Activities						VOCs, SVOCs, TPH			Low	Ongoing (SCE anticipated 3rd Qtr. 2011)
Kinder Morgan	Overland Transport						NA			None	NA

Table 5. AOPC 5: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
Kinder Morgan	Bank Erosion						NS			TBD (waiting for SCE to be completed)	Ongoing (anticipated 4th Qtr. 2010)
RK Storage	Groundwater	Gainer	2376	4.5W	5		NA	Former UST, former stockpiled oily sludge, former stockpiled sandblast grit	The DEQ 1999 Strategy Recommendation ranked		
RK Storage	Stormwater						NS				
RK Storage	Overwater Activities						NA				
RK Storage	Overland Transport						NS				
RK Storage	Bank Erosion						NS				
Babcock	Groundwater	Gainer	2361	4.4W	5		NS	Foundry sand, historical dock operations	The DEQ 1999 Strategy Recommendation ranked		
Babcock	Stormwater						NS				
Babcock	Overwater Activities						NS				
Babcock	Overland Transport						NS				
Babcock	Bank Erosion						NS				
Olympic Pipeline	Groundwater	Gainer	3342	5.2W	5		VOCs, PAHs, TPH, metals	Pipeline pump station (area of 1995 spill), AST farm, soil stockpile area, injection pump area	p Low	Low	Completed
Olympic Pipeline	Stormwater						None			TBD (waiting for SCE to be completed)	Ongoing (anticipated 2011)

Notes: See last page of table for full list of footnotes.

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Table 5. AOPC 5: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
Olympic Pipeline	Overwater Activities	Gainer	3342	5.2W	5	**Metals** (Al, Ba, Cd, Cu, Fe, Mn, Hg, Zn), **total low PAHs, Pesticides** (4,4'-DDT, delta-HCH, Total DDx), **BnOH, GRH**	NA	Pipeline pump station (area of 1995 spill), AST farm, soil stockpile area, injection pump area	p Low	None	NA
Olympic Pipeline	Overland Transport						NA			None	NA
Olympic Pipeline	Bank Erosion						NA			None	NA
Shared Conveyance Systems											
OF24	Stormwater	Tarnow	2425	4.3W	5	**Metals** (Al, Ba, Cd, Cu, Fe, Mn, Hg, Zn), **total low PAHs**, **Pesticides** (4,4'-DDT, delta-HCH, Total DDx), **BnOH**, **GRH**	NA	Discharges to sanitary; can only discharge to river if there is a pump station failure (which has not occurred since outfall was controlled in 2000)	NA	NA	NA
Babcock Land Co.	Stormwater	Unassigned	2361	4.4W	5		Not sampled	Not a current pathway			Not tracked in Mil
WR-204	Stormwater	NA	NA	4.1W	5		?	Unknown active multiparty outfall; basin has not been delineated	TBD	TBD	TBD
WR-126	Stormwater	NA	NA	4.4E	5		?	Unknown active multiparty outfall; basin has not been delineated, possibly some highway runoff	TBD	TBD	TBD

Notes:

[a] The information contained in this table is based on information obtained by LWG from correspondence with DEQ project managers and from reports in DEQ files as of ____ 2010. Information on sites upriver of RM 11 and sites within the shared st form of 104(e) information requests, and this is not a final list of sources that may be impacting the Study Area.

[b] SCE = Source Control Evaluation. This is the first step in DEQ's source evaluation process. The status of an SCE is either complete, ongoing, not started, TBD, or NA (for a pathway that is not applicable).

[c] SCD = Source Control Decision. DEQ provides EPA and its partners an opportunity to review (but not approve or disapprove) the DEQ SCD; the status of this review is described in the column, Status of EPA Review of SCE Decision, in the Milest

[d] SCM = Source Control Measures. The final step in the source evaluation process; the implementation status of the SCMs is either complete, ongoing, not started, TBD, or NA.

[e] Adjacent sites are those with potential sources/pathways that are immediately adjacent to the reference AOPC, and upstream sites are those potential sources/pathways that are upstream of the reference AOPC and not reference with any other AOPC

[f] This pathway is included for ECSI sites that have groundwater infiltration into the City storm sewer. For sites without this pathway, assume there is no groundwater infiltration into the City storm sewer.

p = DEQ's preliminary pathway determination
? = Unknown, typically due to lack of sampling information
Italicized cells indicate upland sites within current or former CSO basins. Non-italicized text indicates upland sites within stormwater basins.
Grey shading indicates shared conveyances.

Table 5. AOPC 5: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE

Reference Citations:

City of Portland. 2010. Stormwater Evaluation Report, City of Portland Outfall Project, ECSI 2425. City of Portland, OR. February, 2010.

Delta. 2010. Stormwater Source Control Evaluaton Report. Prepared by Delta Consultants, Portland, OR. April 2010.

DEQ. 2009. Portland Harbor Joint Source Control Strategy - Milestone Report. Prepared by the Oregon Department of Environmental Quality, Portland, OR. December, 2009.

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AST = aboveground storage tank
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BMP = best management practices
BnOH = benzyl alcohol
COI = chemical of interest
CSO = combined sewer overflow
DEQ = Oregon Department Of Environmental Quality
DNAPL = dense non-aqueous phase liquid
ECSI = Environmental Cleanup Site Inventory
EE/CA = engineering evaluation/cost analysis
EIB = in situ bioremediation
EPA = Environmental Protection Agency
FS = feasibility study
GRH = gasoline-range hydrocarbon
GW = groundwater
JSCS = Joint Source Control Strategy
MS4 = municipal separate storm sewer systems
NA = not applicable
NAPL = non-aqueous phase liquid
NFA = no further action
NPDES = National Pollutant Discharge Elimination System
NS = no sampling of upland COIs reported. For stormwater/wastewater, no sampling beyond permit requirements reported.
ODOT = Oregon Department Of Transportation
OERS = Oregon Emergency Response System
PAH = polycyclic aromatic hydrocarbon
PCB = polychlori
PM = project ma
POTW = publicl
PPA = Prospecti
RI = remedial in
ROD = record of
RP = responsible
SVOC = semivol
SW = stormwate
SWPCP = storm
TBT - tributyl tir
TCE = trichloroe
TPH = total petr
UIC = undergrou

Table 5. AOPC 5: Status of Adjacent or Immediately Upstre

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Sources Adjacent to AOPC 5 [e]										
Linnton Plywood/CRSG	Groundwater	Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
Linnton Plywood/CRSG	Stormwater	Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
Linnton Plywood/CRSG	Overwater Activities	Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
Linnton Plywood/CRSG	Overland Transport	Historically potential complete pathway - Removals in 2002 and 2003 addressed potential source control concerns.	Historically potential complete pathway - Removals in 2002 and 2003 addressed potential source control concerns.	Complete (need date)	Independent removal of 2 small upland source areas and offsite disposal in 2002 and 2003	NA	NA	NA	NA	NA
Willamette Cove	Bank Erosion	Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
Kinder Morgan	Groundwater	Complete	Seasonal LNAPL seeps on shoreline associated with historical releases	TBD	Interim SCM includes LNAPL removal and containment with a groundwater pump and treat system	Complete nature and extent in RI, RP preparing FFS on impermeable barrier	TBD	TBD	TBD	TBD
Kinder Morgan	Stormwater	TBD	SCE results from screening stormwater. SCE exceedances: phthalates and metals; Al, As, Cd, Pb, Mn, Zn (Delta 2010)	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Kinder Morgan	Overwater Activities	TBD	TBD	SCMs may not be needed	TBD	TBD	TBD	TBD	TBD	TBD
Kinder Morgan	Overland Transport	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 5. AOPC 5: Status of Adjacent or Immediately Upstre

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Kinder Morgan	Bank Erosion	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
RK Storage	Groundwater	this site as a medium priorty for a Preliminary Assessment; such sites were generally not investigated further according to Portland Harbor site discovery prioritization.								
RK Storage	Stormwater									
RK Storage	Overwater Activities									
RK Storage	Overland Transport									
RK Storage	Bank Erosion									
Babcock	Groundwater	this site as a medium priorty for a Preliminary Assessment; such sites were generally not investigated further according to Portland Harbor site discovery prioritization.								
Babcock	Stormwater									
Babcock	Overwater Activities									
Babcock	Overland Transport									
Babcock	Bank Erosion									
Olympic Pipeline	Groundwater	Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
Olympic Pipeline	Stormwater	TBD (waiting for SCE to be completed)	Dependent upon groundwater conditions	TBD	TBD	TBD	TBD	TBD	TBD	TBD

Notes: See last page of table for full list of footnotes.

Table 5. AOPC 5: Status of Adjacent or Immediately Upstre

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Olympic Pipeline	Overwater Activities	NA	NA	NA	NA	NA	NA	NA	NA	NA
Olympic Pipeline	Overland Transport	NA	NA	NA	NA	NA	NA	NA	NA	NA
Olympic Pipeline	Bank Erosion	NA	NA	NA	NA	NA	NA	NA	NA	NA
Shared Conveyance Systems										
OF24	Stormwater	p Incomplete Pathway	Pathway eliminated in 2000	NA	NA	NA	NA	NA	NA	NA
Babcock Land Co.	Stormwater	estone Report. Remedial activities at site conducted 1990-1997. Site in CSO basin that has been controlled; CSO occurence very infrequent.								
WR-204	Stormwater	TBD	Status of Basin-wide Investigation? Additional Outfall and Up-the-Pipe Investigations?	TBD	Outfall SCM Controls being Designed, Constructed, or Monitored?	TBD	TBD	TBD	TBD	TBD
WR-126	Stormwater	TBD	Status of Basin-wide Investigation? Additional Outfall and Up-the-Pipe Investigations?	TBD	Outfall SCM Controls being Designed, Constructed, or Monitored?	TBD	TBD	TBD	TBD	TBD

Notes:

[a] The information contained in this table is based on informatiormwater conveyance systems is from RI Table 4.4-4 and from the DEQ ECSI database. Please note that source inventory is an ongoing process by DEQ and EPA, in the form of 104(e) information requests, and this is not a final list

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Table 5. AOPC 5: Status of Adjacent or Immediately Upstre

		SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
Site Name	Potential Contaminant Migration Pathway	SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results

Reference Citations:

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atile organic compound
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ınd injection control
UST = underground storage tank
VOC = volatile organic compound
XPA = expanded preliminary assessment

Table 6. AOPC 6: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	DEQ Site Priority Level	DEQ Pathway Priority Level	Status of SCE
Sources Adjacent to AOPC 6 [e]											
POP Terminal 4, Slip 1	Groundwater	Gainer	2356	4.3E	6	**Metals** (Cd, Cu, Ag, Zn), **PAHs** (total BFA, total low PAHs), **Total PCBs, Total TEQ, SVOCs** (BnOH, carbazole, phenol), **delta-HCH**	PAHs, metals, TPH, pesticides	Railroad tracks in western portion of OU1; current facility operations.	p Medium	p Low	Complete (August 2007)
POP Terminal 4, Slip 1	Stormwater						PAHs, TPH, pesticides, PCBs, metals, phthalates			p Medium	Complete (September 2009)
POP Terminal 4, Slip 1	Overwater Activities						NA			None	NA
POP Terminal 4, Slip 1	Overland Transport						NA			None	NA
Willamette Cove	Bank Erosion						PAHs, metals, TPH, pesticides			High	Complete (August 2007)
POP Terminal 4, Slip 3	Groundwater	Gainer	272	4.6E	6		PAHs, TPH	Pencil pitch in limited area of riverbank and Slip 3 bank.	Medium	Medium	Complete (January 2000)
POP Terminal 4, Slip 3	Stormwater						PAHs, pesticides, metals, phthalates, TPH, PCBs			p Medium	Complete (9/2009)
POP Terminal 4, Slip 3	Overwater Activities						NA			None	NA
POP Terminal 4, Slip 3	Overland Transport						NA			None	NA
POP Terminal 4, Slip 3	Bank Erosion						PAHs, metals, TPH			Medium	Complete (July 2007 and July 2008)
Shared Conveyance Systems											

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	DEQ Site Priority Level	DEQ Pathway Priority Level	Status of SCE
OF52C	Stormwater	Tarnow	2425	4.4E	6	**Metals** (Cd, Cu, Ag, Zn), **PAHs** (total BFA, total low PAHs), **Total PCBs**, **Total TEQ**, **SVOCs** (BnOH, carbazole, phenol), **delta-HCH**	PCBs (City of Portland 2010)	Drains 22 acres of light industry	Medium	p Medium	p Complete (2010)
Borden Packaging & Industrial Products	Stormwater	Unassigned	1277	4.5E	6		Other (e.g., chlorinated- and alcohol-based solvents)	Resin and glue product manufacturing, possible GW contamination source			Nc
Sources Upstream of AOPC 6 [e]											
POP Terminal 4, Auto Storage	See AOPC #10	Gainer	172								

Notes: See last page of table for full list of footnotes.

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	DEQ Site Priority Level	DEQ Pathway Priority Level	Status of SCE

Notes:

[a] The information contained in this table is based on information obtained by LWG from correspondence with DEQ project managers and from reports in DEQ files as of ____ 2010. Information on sites upriver of RM 11 and sites within the shared st form of 104(e) information requests, and this is not a final list of sources that may be impacting the Study Area.

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[c] SCD = Source Control Decision. DEQ provides EPA and its partners an opportunity to review (but not approve or disapprove) the DEQ SCD; the status of this review is described in the column, Status of EPA Review of SCE Decision, in the Milest

[d] SCM = Source Control Measures. The final step in the source evaluation process; the implementation status of the SCMs is either complete, ongoing, not started, TBD, or NA.

[e] Adjacent sites are those with potential sources/pathways that are immediately adjacent t 3.6E

[f] This pathway is included for ECSI sites that have groundwater infiltration into the City storm sewer. For sites without this pathway, assume there is no groundwater infiltration into the City storm sewer.

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GRH = gasoline-range hydrocarbon
GW = groundwater
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MS4 = municipal separate storm sewer systems
NA = not applicable
NAPL = non-aqueous phase liquid
NFA = no further action
NPDES = National Pollutant Discharge Elimination System
NS = no sampling of upland COIs reported. For stormwater/wastewater, no sampling beyond permit requirements reported.
ODOT = Oregon Department Of Transportation
OERS = Oregon Emergency Response System
PAH = polycyclic aromatic hydrocarbon
PCB = polyclorinated biphenyl
PM = project manager
POTW = publicly owned treatment works
PPA = Prospective Purchaser Agreement
RI = remedial investigation
ROD = record of decision
RP = responsible party
SVOC = semivolatile organic compound
SW = stormwater
SWPCP = stormwater pollution control plan
TBT - tributyl tin
TCE = trichloroethene
TPH = total petroleum hydrocarbon
UIC = underground injection control
UST = underground storage tank
VOC = volatile organic compound
XPA = expanded preliminary assessment

Table 6. AOPC 6: Status of Adjacent or Immediately Upstre

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Sources Adjacent to AOPC 6 [e]										
POP Terminal 4, Slip 1	Groundwater	p Insignificant Pathway	Preliminary determination that pathway is insignificant	TBD, Pending EPA review (anticipated Winter 2009)	TBD	TBD	NA	NA	NA	NA
POP Terminal 4, Slip 1	Stormwater	TBD	SCM planned	Complete (9/09)	SW pipes cleanout (Summer 2010)	NA	Complete	Effectiveness monitoriing (June 2011)	TBD	TBD
POP Terminal 4, Slip 1	Overwater Activities	No known current sources (spills reported to OERS)	NA	NA	NA	NA	NA	NA	NA	NA
POP Terminal 4, Slip 1	Overland Transport	NA	NA	NA	NA	NA	NA	NA	NA	NA
Willamette Cove	Bank Erosion	Complete Pathway	SCM necessary, coordinate with T4 Early Action	Complete (February /2007)	Wheeler Bay regraded and capped, Fall '08	Tied to T4 Early Action	Complete 10/08	Periodic inspection and maintenance	NA	NA
POP Terminal 4, Slip 3	Groundwater	Complete Pathway	SCM necessary	Complete (January 2000)	Bank excavation and backfill remedial action, NAPL recovery, monitoring	Continue NAPL recovery and monitoring	Continue NAPL recovery and monitoring	Continue NAPL recovery and monitoring	Continue NAPL recovery and monitoring	TBD
POP Terminal 4, Slip 3	Stormwater	Complete Pathway	SCM necessary, implement starting Summer 2010	Complete (September 2009)	SW pipes cleanout (Summer 2010)	NA	Complete	Effectiveness monitoriing (June 2011)	TBD	TBD
POP Terminal 4, Slip 3	Overwater Activities	NA	NA	NA	NA	NA	NA	NA	NA	NA
POP Terminal 4, Slip 3	Overland Transport	NA	NA	NA	NA	NA	NA	NA	NA	NA
POP Terminal 4, Slip 3	Bank Erosion	Complete Pathway	Pencil pitch observed and PAHs detected in riverbank soils above PECs	Complete (June 2009)	Excavation and capping (Summer/Fall 2009). 1 of 3 areas completed	Remaining 2 areas to be implemented with Phase II Early Action	Remaining 2 areas to be implemented with Phase II Early Action	TBD	TBD	TBD
Shared Conveyance Systems										

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
OF52C	Stormwater	p Complete Pathway	Most of property in basin owned by the Port. Port T-4 recontamination evaluation in progress.	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Borden Packaging & Industrial Products	Stormwater	ot tracked in Milestone Report. Primarily roof drainage discharges to OF52C; remainder of site discharges to dry wells.								
Sources Upstream of AOPC 6 [e]										
POP Terminal 4, Auto Storage	See AOPC #10									

Notes: See last page of table for full list of footnotes.

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results

Notes:

[a] ~~The information contained in this table is based on informati~~ormwater conveyance systems is from RI Table 4.4-4 and from the DEQ ECSI database. Please note that source inventory is an ongoing process by DEQ and EPA, in the form of 104(e) information requests, and this is not a final list

[b] SCE = Source Control Evaluation. This is the first step in DE

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[e] Adjacent sites are those with potential sources/pathways that

[f] This pathway is included for ECSI sites that have groundwate

p = DEQ's preliminary pathway determination
? = Unknown, typically due to lack of sampling information
Italicized cells indicate upland sites within current or former (
Grey shading indicates shared conveyances.

Reference Citations:

City of Portland. 2010. Stormwater Evaluation Report, City o

DEQ. 2009. Portland Harbor Joint Source Control Strategy -

Acronyms:

AOC = Administrative Order of Consent
AOPC = area of potential concern
AS/SVE = air sparging/soil vapor extraction
AST = aboveground storage tank
BEHP = bis-2-(ethylhexyl) phthalate
BMP = best management practices
BnOH = benzyl alcohol
COI = chemical of interest
CSO = combined sewer overflow
DEQ = Oregon Department Of Environmental Quality
DNAPL = dense non-aqueous phase liquid
ECSI = Environmental Cleanup Site Inventory
EE/CA = engineering evaluation/cost analysis
EIB = in situ bioremediation
EPA = Environmental Protection Agency
FS = feasibility study
GRH = gasoline-range hydrocarbon
GW = groundwater
JSCS = Joint Source Control Strategy
MS4 = municipal separate storm sewer systems
NA = not applicable
NAPL = non-aqueous phase liquid
NFA = no further action

Table 7. AOPC 7: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	DEQ Site Priority Level	DEQ Pathway Priority Level	Status of SCE
Sources Adjacent to AOPC 7 [e]											
Linnton Plywood/CRSG	Groundwater	McClincy	2373, 2351	4.6W	7	Cu, total low PAHs, BnOH	TPH, metals, phthalates	Eroded bank at maintenance shop area; private outfalls, tug and barge operations at CRSG and historical log operations	NFA, Low	Low	Complete (5/7/04)
Linnton Plywood/CRSG	Stormwater						VOCs, SVOCs, PAHs, TPH, PCBs, metals, phthalates			Low	Complete (5/7/04)
Linnton Plywood/CRSG	Overwater Activities						TPH, metals			Low	Complete (5/7/04)
Linnton Plywood/CRSG	Overland Transport						PAHs, TPH, PCBs, metals			Low	Complete (5/7/04)
Willamette Cove	Bank Erosion						TPH, metals			Low	Complete (5/7/04)
Shared Conveyance Systems											
WR-102	Stormwater	NA	NA	4.7W	7	Cu, total low PAHs, BnOH	?	Unknown active multiparty outfall; basin has not been delineated, possible highway runoff	TBD	TBD	TBD
Sources Upstream of AOPC 7 [e]											
ARCO	See AOPC #8	Gainer	1528								
Exxon/Mobil	See AOPC #8	Gainer	137								

Notes: See last page of table for full list of footnotes.

Table 7. AOPC 7: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	DEQ Site Priority Level	DEQ Pathway Priority Level	Status of SCE

Notes:

[a] The information contained in this table is based on information obtained by LWG from correspondence with DEQ project managers and from reports in DEQ files as of ____ 2010. Information on sites upriver of RM 11 and sites within the shared st form of 104(e) information requests, and this is not a final list of sources that may be impacting the Study Area.

[b] SCE = Source Control Evaluation. This is the first step in DEQ's source evaluation process. The status of an SCE is either complete, ongoing, not started, TBD, or NA (for a pathway that is not applicable).

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[e] Adjacent sites are those with potential sources/pathways that are immediately adjacent to the reference AOPC, and upstream sites are those potential sources/pathways that are upstream of the reference AOPC and not reference with any other AOPC

[f] This pathway is included for ECSI sites that have groundwater infiltration into the City storm sewer. For sites without this pathway, assume there is no groundwater infiltration into the City storm sewer.

p = DEQ's preliminary pathway determination
? = Unknown, typically due to lack of sampling information
Italicized cells indicate upland sites within current or former CSO basins. Non-italicized 3.6E
Grey shading indicates shared conveyances.

Reference Citations:

DEQ. 2009. Portland Harbor Joint Source Control Strategy - Milestone Report. Prepared by the Oregon Department of Environmental Quality, Portland, OR. December 2009.

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CSO = combined sewer overflow
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ECSI = Environmental Cleanup Site Inventory
EE/CA = engineering evaluation/cost analysis
EIB = in situ bioremediation
EPA = Environmental Protection Agency
FS = feasibility study
GRH = gasoline-range hydrocarbon
GW = groundwater
JSCS = Joint Source Control Strategy
MS4 = municipal separate storm sewer systems
NA = not applicable
NAPL = non-aqueous phase liquid
NFA = no further action
NPDES = National Pollutant Discharge Elimination System
NS = no sampling of upland COIs reported. For stormwater/wastewater, no sampling beyond permit requirements reported.
ODOT = Oregon Department Of Transportation
OERS = Oregon Emergency Response System
PAH = polycyclic aromatic hydrocarbon
PCB = polyclorinated biphenyl
PM = project manager
POTW = publicly owned treatment works
PPA = Prospective Purchaser Agreement
RI = remedial investigation
ROD = record of decision
RP = responsible party
SVOC = semivolatile organic compound
SW = stormwater
SWPCP = stormwater pollution control plan
TBT - tributyl tin
TCE = trichloroethene
TPH = total petroleum hydrocarbon
UIC = underground injection control
UST = underground storage tank
VOC = volatile organic compound
XPA = expanded preliminary assessment

Table 7. AOPC 7: Status of Adjacent or Immediately Upstre

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Sources Adjacent to AOPC 7 [e]										
Linnton Plywood/CRSG	Groundwater	Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
Linnton Plywood/CRSG	Stormwater	Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
Linnton Plywood/CRSG	Overwater Activities	Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
Linnton Plywood/CRSG	Overland Transport	p Complete Pathway	SCM addressed this potentially complete pathway	Complete (5/7/04)	Independent removal of two small upland source areas and offsite disposal in 2002 and 2003	NA	NA	NA	NA	NA
Willamette Cove	Bank Erosion	Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
Shared Conveyance Systems										
WR-102	Stormwater	TBD	Status of Basin-wide Investigation? Additional Outfall and Up-the-Pipe Investigations?	TBD	Outfall SCM Controls being Designed, Constructed, or Monitored?	TBD	TBD	TBD	TBD	TBD
Sources Upstream of AOPC 7 [e]										
ARCO	See AOPC #8									
Exxon/Mobil	See AOPC #8									

Notes: See last page of table for full list of footnotes.

Table 7. AOPC 7: Status of Adjacent or Immediately Upstre

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results

Notes:

[a] ~~The information contained in this table is based on informati~~ormwater conveyance systems is from RI Table 4.4-4 and from the DEQ ECSI database. Please note that source inventory is an ongoing process by DEQ and EPA, in the form of 104(e) information requests, and this is not a final list

[b] SCE = Source Control Evaluation. This is the first step in DE

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[f] This pathway is included for ECSI sites that have groundwate

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? = Unknown, typically due to lack of sampling information
Italicized cells indicate upland sites within current or former (
Grey shading indicates shared conveyances.

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FS = feasibility study
GRH = gasoline-range hydrocarbon
GW = groundwater
JSCS = Joint Source Control Strategy
MS4 = municipal separate storm sewer systems
NA = not applicable
NAPL = non-aqueous phase liquid
NFA = no further action

Table 8. AOPC 8: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	DEQ Site Priority Level	DEQ Pathway Priority Level	Status of SCE
Sources Adjacent to AOPC 8 [e]											
ARCO	Groundwater	Gainer	1528	4.8W	8	**Metals** (Al, Ba, Be, Cd, Cu, Fe, Pb, Mn, Hg, Zn), **PAHs** (2-methylnaphthalene, acenapthene, anthracene, BAP, BAA, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, pyrene, total low PAHs), **BnOH, total PCBs, total TEQ, GRH**	VOCs, PAHs, TPH, metals	Truck-loading rack area, remanufacturing warehouse, tank farms, historical spill areas, groundwater plume, seepage from interceptor well and seawall, dock operations	High	p High	Complete (May 2004)
ARCO	Stormwater						VOCs, PAHs, TPH, metals			TBD	Ongoing
ARCO	Overwater Activities						PAHs, TPH, metals			None	NA
ARCO	Overland Transport						NA			None	NA
Willamette Cove	Bank Erosion						NA			None	NA
ARCO	Other - Nearshore Sediment						NA			None	NA
Exxon/Mobil	Groundwater						VOCs, PAHs, TPH, metals			High	Complete (2008)

Table 8. AOPC 8: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	DEQ Site Priority Level	DEQ Pathway Priority Level	Status of SCE
Exxon/Mobil	Stormwater	Gainer	137	5.1W	8		VOCs, PAHs, TPH, metals	North and Center tank farms, fuel loading rack, over-water fuel transfer spills	High	TBD	ExxonMobil Lube Plant (fall 2010). Bulk Terminal to be evaluated by current owner (NuStar).
Exxon/Mobil	Overwater Activities						VOCs, PAHs, TPH			None	NA
Exxon/Mobil	Overland Transport						NA			None	NA
Exxon/Mobil	Bank Erosion						NA			None	NA

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Table 8. AOPC 8: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	DEQ Site Priority Level	DEQ Pathway Priority Level	Status of SCE
Shared Conveyance Systems											
WR-202	Stormwater	NA	NA	4.9W	8	**Metals** (Al, Ba, Be, Cd, Cu, Fe, Pb, Mn, Hg, Zn), **PAHs** (2-methylnaphthalene, acenapthene, anthracene, BAP, BAA, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, pyrene, total low PAHs), **BnOH**, **total PCBs**, **total TEQ**, **GRH**	?	Unknown active multiparty outfall; basin has not been delineated, possible highway runoff	TBD	TBD	TBD
WR-203	Stormwater	NA	NA	4.8W	8		?	Unknown active multiparty outfall; basin has not been delineated, possible highway runoff	TBD	TBD	TBD

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[f] This pathway is included for ECSI sites that have groundwater infiltration into the City s 3.6E

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? = Unknown, typically due to lack of sampling information
Italicized cells indicate upland sites within current or former CSO basins. Non-italicized text indicates upland sites within stormwater basins.
Grey shading indicates shared conveyances.

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Acronyms:

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Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	DEQ Site Priority Level	DEQ Pathway Priority Level	Status of SCE

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EPA = Environmental Protection Agency
FS = feasibility study
GRH = gasoline-range hydrocarbon
GW = groundwater
JSCS = Joint Source Control Strategy
MS4 = municipal separate storm sewer systems
NA = not applicable
NAPL = non-aqueous phase liquid
NFA = no further action
NPDES = National Pollutant Discharge Elimination System
NS = no sampling of upland COIs reported. For stormwater/wastewater, no sampling beyond permit requirements reported.
ODOT = Oregon Department Of Transportation
OERS = Oregon Emergency Response System
PAH = polycyclic aromatic hydrocarbon
PCB = polyclorinated biphenyl
PM = project manager
POTW = publicly owned treatment works
PPA = Prospective Purchaser Agreement
RI = remedial investigation
ROD = record of decision
RP = responsible party
SVOC = semivolatile organic compound
SW = stormwater
SWPCP = stormwater pollution control plan
TBT - tributyl tin
TCE = trichloroethene
TPH = total petroleum hydrocarbon
UIC = underground injection control
UST = undergrou
VOC = volatile o
XPA = expanded

Table 8. AOPC 8: Status of Adjacent or Immediately Upstre

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Sources Adjacent to AOPC 8 [e]										
ARCO	Groundwater	p Complete Pathway	Free product and dissolved phase potentially reaching river	Complete (2004, 2007)	Interceptor wells installed in 1971, 1994, and 1997. An enhanced hydraulic control system began operating in 2005. New sheetpile seawall in 11/07. Effectiveness monitoring 2009	Recontamination evaluation due 12/2010	Completed (11/08)	Recontaminatio n evaluation due 12/2010	Evaluate effectivess of SCMs (2011). Upland FS due November 2010.	NA
ARCO	Stormwater	TBD (waiting on SCE to be completed)	Sampling stormwater system	TBD	TBD	TBD	TBD	TBD	TBD	TBD
ARCO	Overwater Activities	No known current sources (spills reported to OERS)	NA	NA	NA	NA	NA	NA	NA	NA
ARCO	Overland Transport	NA	NA	NA	NA	NA	NA	NA	NA	NA
Willamette Cove	Bank Erosion	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARCO	Other - Nearshore Sediment	NA	PAHs, metals	Complete (March 2007)	Nearshore sediment removal and offsite disposal, clean fill cap, final grading and planting	NA	Sediment SCM implemented in 2008 and 2009.	Ongoing	Recontaminatin evaluation (2011)	TBD
Exxon/Mobil	Groundwater	Complete Pathway	Exisitng air sparge/vapor extration (1/06) did not sufficiently control migration of dissolved petroleum constituents.	Complete (June 2009)	Dual-phase pump and treat.	Installation scheduled late 2010.	Not started.	NA	NA	NA

Table 8. AOPC 8: Status of Adjacent or Immediately Upstre

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Exxon/Mobil	Stormwater	TBD (Waiting on SCE to be completed)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Exxon/Mobil	Overwater Activities	No known current sources (spills reported to OERS)	NA	NA	NA	NA	NA	NA	NA	NA
Exxon/Mobil	Overland Transport	NA	NA	NA	NA	NA	NA	NA	NA	NA
Exxon/Mobil	Bank Erosion	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes: See last page of table for full list of footnotes.

Table 8. AOPC 8: Status of Adjacent or Immediately Upstre

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Shared Conveyance Systems										
WR-202	Stormwater	TBD	Status of Basin-wide Investigation? Additional Outfall and Up-the-Pipe Investigations?	TBD	Outfall SCM Controls being Designed, Constructed, or Monitored?	TBD	TBD	TBD	TBD	TBD
WR-203	Stormwater	TBD	Status of Basin-wide Investigation? Additional Outfall and Up-the-Pipe Investigations?	TBD	Outfall SCM Controls being Designed, Constructed, or Monitored?	TBD	TBD	TBD	TBD	TBD

Notes:

[a] The information contained in this table is based on informatiormwater conveyance systems is from RI Table 4.4-4 and from the DEQ ECSI database. Please note that source inventory is an ongoing process by DEQ and EPA, in the form of 104(e) information requests, and this is not a final list

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Acronyms:

Table 8. AOPC 8: Status of Adjacent or Immediately Upstre

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results

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ECSI = Environmental Cleanup Site Inventory
EE/CA = engineering evaluation/cost analysis
EIB = in situ bioremediation
EPA = Environmental Protection Agency
FS = feasibility study
GRH = gasoline-range hydrocarbon
GW = groundwater
JSCS = Joint Source Control Strategy
MS4 = municipal separate storm sewer systems
NA = not applicable
ınd storage tank
ırganic compound
l preliminary assessment

Table 9a. AOPC 9 - Downstream: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
Sources Adjacent to AOPC 9 - Downstream [e]											
US Moorings	Groundwater	M. Ader, EPA	1641	6.2W	9D	**Metals** (Al, Ba, Be, Cd, Co, Cu, Fe, Pb, Mn, Hg, Ni, V, Zn), **TBT, PAHs** (2-methylnaphthalene, acenapthene, anthracene, BAP, BAA, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, pyrene, total BFA, total high PAH, total low PAH), **SVOCs** (BnOH, carbazole, phenol), **dibenzofuran, total PCBs, pesticides** (4,4'-DDT, delta-HCH, endrin, endrin ketone, total DDx), **VOCs** (1,1-DCE, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, cis-1,2-dichloroethene, cyanide, ethylbenzene, isopropylbenzene, m,p-xylene, o-xylene, toluene, total xylene, TCE), **Misc. Compounds** (carbon disulfide, GRH)	VOCs, SVOCs, PAHs, PCBs, pesticides, metals, Other (e.g., cyanide)	Former underground storage tanks, electrical transformers, dry wells and stormwater outfalls, routine vehicle/vessel maintenance activities, historic fill, bulkhead seep (KTA/TEC 2010)	TBD	TBD	Complete (Winter 2010)
US Moorings	Stormwater						VOCs, SVOCs, PAHs, PCBs, TPH, pesticides, metals, butyltins			TBD	Complete (Winter 2010)
US Moorings	Overwater Activities						Metals, pesticides, butyltins			TBD	Complete (Winter 2010)
US Moorings	Overland Transport						VOCs, SVOCs, PAHs, PCBs, TPH, pesticides, metals, butyltins			TBD	Complete (Winter 2010)
Willamette Cove	Bank Erosion						NS			TBD	Complete (Winter 2010)
Marine Finance	Groundwater	Pugh	2352	5.8W	9D		NA	Former metal salvage operation, former USTs, former drum storage area, former warehouse, pooled water below storm drain, overwater dock, stormwater pipe, barge/tug moorage	NFA, Low	Low	Complete (4/14/08 NFA Issued)
Marine Finance	Stormwater						VOCs, PAHs, TPHs, metals, butyltins			Low	Complete (4/14/08 NFA Issued)
Marine Finance	Overwater Activities						NA			None	NA
Marine Finance	Overland Transport						VOCs, PAHs, TPH, metals, butyltins			Low	Complete (4/14/08 NFA Issued)
Marine Finance	Bank Erosion						VOCs, SVOCs, PAHs, TPH, metals, butyltins, other			Low	Complete (4/14/08 NFA Issued)
Transloader	Groundwater						NS				

Table 9a. AOPC 9 - Downstream: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
Transloader	Stormwater	Gainer	2367	5.6W	9D		NS	Dolphin and floating walkway, outfall (ownership unknown)			
Transloader	Overwater Activities						NS				
Transloader	Overland Transport						NS				
Transloader	Bank Erosion						NS				
Foss Maritime/Brix Marine	Groundwater	Orr	2364	5.5W	9D		VOCs, PAHs, TPH, metals	Former gasoline and lube oil UST and pipelines, former gasoline dispenser area, former 30-weight oil pipeline area, current lube oil and diesel UST and pipelines, catch basins, transformers, overwater activities (vessel servicing and emissions)	p Medium	p Med	Ongoing (anticipated 4th Qtr. 2011)

Notes: See last page of table for full list of footnotes.

Foss Maritime/Brix Marine	Stormwater	Orr	2364	5.5W	9D		VOCs, PAHs, TPH	Former gasoline and lube oil UST and pipelines, former gasoline dispenser area, former 30-weight oil pipeline area, current lube oil and diesel UST and pipelines, catch basins, transformers, overwater activities (vessel servicing and emissions)	p Medium	TBD	Ongoing (anticipated 4th Qtr. 2011)
Foss Maritime/Brix Marine	Overwater Activities						VOCs, SVOCs, PAHs, TPH, metals			None	NA
Foss Maritime/Brix Marine	Overland Transport						NA			None	NA
Foss Maritime/Brix Marine	Bank Erosion						NA			None	NA
Nustar (ST Services/Shore Terminal)	Groundwater					**Metals** (Al, Ba, Be, Cd, Co, Cu, Fe, Pb, Mn, Hg, Ni, V, Zn), **TBT**, **PAHs** (2-methylnaphthalene, acenapthene, anthracene, BAP, BAA, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene,	VOCs, TPH			p Med	~~Not started (need anticipated date)~~ SCE WP Under Review Start Work Fall 2010
Nustar (ST Services/Shore Terminal)	Stormwater						None Reported			TBD	~~Not started (need anticipated date)~~ SCE WP Under Review Start Work Fall 2010

Table 9a. AOPC 9 - Downstream: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
Nustar (ST Services/Shore Terminal)	Overwater Activities	Orr	5130	5.4W	9D	dibenz(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, pyrene, total BFA, total high PAH, total low PAH), **SVOCs** (BnOH, carbazole, phenol), **dibenzofuran**, **total PCBs**, **pesticides** (4,4'-DDT, delta-HCH, endrin, endrin ketone, total DDx), **VOCs** (1,1-DCE, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, cis-1,2-dichloroethene, cyanide, ethylbenzene, isopropylbenzene, m,p-xylene, o-xylene, toluene, total xylene, TCE), **Misc. Compounds** (carbon disulfide, GRH)	NS	Terminal tank farm, dock operations	p Medium	TBD	~~Not started (need anticipated date)~~ SCE WP Under Review Start Work Fall 2010
Nustar (ST Services/Shore Terminal)	Overland Transport						NS			TBD	~~Not started (need anticipated date)~~ SCE WP Under Review Start Work Fall 2010
Nustar (ST Services/Shore Terminal)	Bank Erosion						NS			NA	Not started (need anticipated date)
Exxon/Mobil	Groundwater	Gainer	137	5.0W	9D		VOCs, PAHs, TPH, metals	North and Center tank farms, fuel loading rack, over-water fuel transfer spills	High	High	Complete (2008)
Exxon/Mobil	Stormwater	Gainer	137	5.0W	9D		VOCs, PAHs, TPH, metals	North and Center tank farms, fuel loading rack, over-water fuel transfer spills	High	TBD	ExxonMobil Lube Plant (fall 2010). Bulk Terminal to be evaluated by current owner (NuStar).
Exxon/Mobil	Overwater Activities						VOCs, PAHs, TPH			None	NA
Exxon/Mobil	Overland Transport						NA			None	NA
Exxon/Mobil	Bank Erosion						NA			None	NA

Notes: See last page of table for full list of footnotes.

Table 9a. AOPC 9 - Downstream: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
Shared Conveyance Systems											
OF22D	Stormwater	Tarnow	2425	5.5W	9D	**Metals** (Al, Ba, Be, Cd, Co, Cu, Fe, Pb, Mn, Hg, Ni, V, Zn), **TBT**, **PAHs** (2-methylnaphthalene, acenapthene, anthracene, BAP, BAA, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, pyrene, total BFA, total high PAH, total low PAH), **SVOCs** (BnOH, carbazole, phenol), **dibenzofuran**, **total PCBs**, **pesticides** (4,4'-DDT, delta-HCH, endrin, endrin ketone, total DDx), **VOCs** (1,1-DCE, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, cis-1,2-dichloroethene, cyanide,	None (City of Portland 2010)	Drains 15 acres developed land (5 acres major transportation and 10 acres residential). No ECSI sites have been identified within basin.	Low	p Low	p Complete (2010)
WR-207	Stormwater	NA	NA	5.8W	9D		?	ODOT active outfall; basin has not been delineated	TBD	TBD	TBD
WR-206	Stormwater	NA	NA	6.0W	9D		?	Unknown active multiparty outfall; basin has not been delineated, possible highway runoff	TBD	TBD	TBD
WR-208	Stormwater	NA	NA	5.7W	9D		?	Unknown active multiparty outfall; basin has not been delineated	TBD	TBD	TBD
WR-209	Stormwater	NA	NA	5.3W	9D		?	Unknown active multiparty outfall; basin has not been delineated, possible highway runoff	TBD	TBD	TBD

Table 9a. AOPC 9 - Downstream: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
WR-205	Stormwater	NA	NA	6.1W	9D	ethylbenzene, isopropylbenzene, m,p-xylene, o-xylene, toluene, total xylene, TCE), **Misc. Compounds** (carbon disulfide, GRH)	?	Unknown active multiparty outfall; basin has not been delineated, possible highway runoff	TBD	TBD	TBD
WR-211	Stormwater	NA	NA	5.6W	9D		?	Unknown active multiparty outfall; basin has not been delineated, possible highway runoff	TBD	TBD	TBD
WR-510	Stormwater	NA	NA	5.8W	9D		?	Unknown multiparty outfall; basin has not been delineated	TBD	TBD	TBD

Notes: See last page of table for full list of footnotes.

Table 9a. AOPC 9 - Downstream: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
Sources Upstream of AOPC 9 - Downstream [e]											
Gasco	See AOPC #9Upstream	Bayuk	84								
Siltronic	See AOPC #9Upstream	Bayuk	183								
Arkema	See AOPC #14	McClincy	398								
Rhone Poulenc	See AOPC #14	Lacey	155								

Notes:

[a] The information contained in this table is based on information obtained by LWG from correspondence with DEQ project managers and from reports in DEQ files as of ____ 2010. Information on sites upriver of RM 11 and sites within the shared sto form of 104(e) information requests, and this is not a final list of sources that may be impacting the Study Area.

[b] SCE = Source Control Evaluation. This is the first step in DEQ's source evaluation process. The status of an SCE is either complete, ongoing, not started, TBD, or NA (for a pathway that is not applicable).

[c] SCD = Source Control Decision. DEQ provides EPA and its partners an opportunity to review (but not approve or disapprove) the DEQ SCD; the status of this review is described in the column, Status of EPA Review of SCE Decision, in the Milesto

[d] SCM = Source Control Measures. The final step in the source evaluation process; the implementation status of the SCMs is either complete, ongoing, not started, TBD, or NA.

[e] Adjacent sites are those with potential sources/pathways that are immediately adjacent to the reference AOPC, and upstream sites are those potential sources/pathways that are upstream of the reference AOPC and not reference with any other AOPC.

[f] This pathway is included for ECSI sites that have groundwater infiltration into the City storm sewer. For sites without this pathway, assume there is no groundwater infiltration into the City storm sewer.

p = DEQ's preliminary pathway determination
? = Unknown, typically due to lack of sampling information
Italicized cells indicate upland sites within current or former CSO basins. Non-italicized text indicates upland sites within stormwater basins.
Grey shading indicates shared conveyances.

Reference Citations:

Ader. 2010. Email of January 8, 2010 to S. Trevathan, Integral, from M. Ader, US EPA, regarding status of site characterization work at U.S Moorings. U.S. Environmental Protection Agency, Seattle, WA.

City of Portland. 2010. Stormwater Evaluation Report, City of Portland Outfall Project, ECSI 2425. City of Portland, OR. February, 2010.

DEQ. 2009. Portland Harbor Joint Source Control Strategy - Milestone Report. Prepared by the Oregon Department of Environmental Quality, Portland, OR. December 2009.

KTA/TEC. 2010. Final Remedial Investigation Report, U.S. Government Moorings, Portland, OR. Prepared for U.S. Army Corps of Engineers, Portland District, Portland, OR. KTA Associates, Portland, OR.and TEC, Inc., Portland, OR.

Acronyms:

AOC = Administrative Order of Consent
AOPC = area of potential concern
AS/SVE = air sparging/soil vapor extraction
AST = aboveground storage tank
BEHP = bis-2-(ethylhexyl) phthalate
BMP = best management practices
BnOH = benzyl alcohol
COI = chemical of interest
CSO = combined sewer overflow
DEQ = Oregon Department Of Environmental Quality
DNAPL = dense non-aqueous phase liquid
ECSI = Environmental Cleanup Site Inventory
EE/CA = engineering evaluation/cost analysis
EIB = in situ bioremediation
EPA = Environmental Protection Agency
FS = feasibility study
NPDES = National Pollutant Discharge Elimination System
NS = no sampling of upland COIs reported. For stormwater/wastewater, no sampling beyond permit requirements reported.
ODOT = Oregon Department Of Transportation
OERS = Oregon Emergency Response System
PAH = polycyclic aromatic hydrocarbon
PCB = polyclorinated biphenyl
PM = project manager
POTW = publicly owned treatment works
PPA = Prospective Purchaser Agreement
RI = remedial investigation
ROD = record of decision
RP = responsible party
SVOC = semivolatile organic compound
SW = stormwater
SWPCP = stormwater pollution control plan
TBT - tributyl tin

Table 9a. AOPC 9 - Downstream: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE

GRH = gasoline-range hydrocarbon
GW = groundwater
JSCS = Joint Source Control Strategy
MS4 = municipal separate storm sewer systems
NA = not applicable
NAPL = non-aqueous phase liquid
NFA = no further action
TCE = trichloroethene
TPH = total petroleum hydrocarbon
UIC = underground injection control
UST = underground storage tank
VOC = volatile organic compound
XPA = expanded preliminary assessment

Table 9a. AOPC 9 - Downstream: Status of Adjacent or Imn

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Sources Adjacent to AOPC 9 - Downstream [e]										
US Moorings	Groundwater	TBD	TBD (FS anticipated Summer 2010)	Complete (Ader 2010)	TBD	TBD	TBD	TBD	TBD	TBD
US Moorings	Stormwater	TBD	TBD (FS anticipated Summer 2010)	Complete (Ader 2010)	TBD	TBD	TBD	TBD	TBD	TBD
US Moorings	Overwater Activities	TBD	TBD (FS anticipated Summer 2010)	Complete (Ader 2010)	TBD	TBD	TBD	TBD	TBD	TBD
US Moorings	Overland Transport	TBD	TBD (FS anticipated Summer 2010)	Complete (Ader 2010)	TBD	TBD	TBD	TBD	TBD	TBD
Willamette Cove	Bank Erosion	TBD	TBD (FS anticipated Summer 2010)	Complete (Ader 2010)	TBD	TBD	TBD	TBD	TBD	TBD
Marine Finance	Groundwater	Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
Marine Finance	Stormwater	Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
Marine Finance	Overwater Activities	No known current sources (spills reported to OERS)	NA	NA	NA	NA	NA	NA	NA	NA
Marine Finance	Overland Transport	p Complete Pathway?	Contaminated over screening criteria in soil potentially susceptible to runoff	Complete (November 2005)	Dig and haul soil contamination, capping with clean fill and/or building	Soil removed July 2005, selected site areas capped with building and/or clean fill	1,150 yd^3 soil removed	Complete	Institutional control for cap and building will be required	NA
Marine Finance	Bank Erosion	Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
Transloader	Groundwater									

Table 9a. AOPC 9 - Downstream: Status of Adjacent or Imn

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Transloader	Stormwater	Not tracked in Milestone Report [Request additional info]								
Transloader	Overwater Activities									
Transloader	Overland Transport									
Transloader	Bank Erosion									
Foss Maritime/Brix Marine	Groundwater	Complete Pathway	~~What were the findings of the SCE?~~ TBD	TBD	Continue monitoring; complete available site data for RI and source control evaluation	TBD	TBD	TBD	TBD	TBD

Notes: See last page of table for full list of footnotes.

Foss Maritime/Brix Marine	Stormwater	TBD	~~What were the findings of the SCE?~~ TBD	TBD	Catch basin sediment sampling/ screening for site COI plus PCBs and phthalates, and follow-up storm water sampling per JSCS	TBD	TBD	TBD	TBD	TBD
Foss Maritime/Brix Marine	Overwater Activities	No known current sources (spills will be reported to OERS)	NA	NA	NA	NA	NA	NA	NA	NA
Foss Maritime/Brix Marine	Overland Transport	NA	NA	NA	NA	NA	NA	NA	NA	NA
Foss Maritime/Brix Marine	Bank Erosion	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nustar (ST Services/Shore Terminal)	Groundwater	Complete Pathway	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Nustar (ST Services/Shore Terminal)	Stormwater	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

Table 9a. AOPC 9 - Downstream: Status of Adjacent or Imn

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Nustar (ST Services/Shore Terminal)	Overwater Activities	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Nustar (ST Services/Shore Terminal)	Overland Transport	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Nustar (ST Services/Shore Terminal)	Bank Erosion	Inc~~C~~omplete Pathway	NA	NA	NA	NA	NA	NA	NA	NA
Exxon/Mobil	Groundwater	Complete Pathway	Exisitng air sparge/vapor extration (1/06) did not sufficiently control migration of dissolved petroleum constituents.	Complete (June 2009)	Dual-phase pump and treat.	Installation scheduled late 2010.	Not started.	NA	NA	NA
Exxon/Mobil	Stormwater	TBD (Waiting on SCE to be completed)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Exxon/Mobil	Overwater Activities	No known current sources (spills reported to OERS)	NA	NA	NA	NA	NA	NA	NA	NA
Exxon/Mobil	Overland Transport	NA	NA	NA	NA	NA	NA	NA	NA	NA
Exxon/Mobil	Bank Erosion	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes: See last page of table for full list of footnotes.

Table 9a. AOPC 9 - Downstream: Status of Adjacent or Imn

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Shared Conveyance Systems										
OF22D	Stormwater	p Insignificant Pathway	Stormwater data indicates insignificant contaminant pathway. Continue City and ODOT MS4 SC programs. SCE to be submitted to DEQ.	TBD	TBD	TBD	TBD	TBD	TBD	TBD
WR-207	Stormwater	TBD	Status of Basin-wide Investigation? Additional Outfall and Up-the-Pipe Investigations?	TBD	Outfall SCM Controls being Designed, Constructed, or Monitored?	TBD	TBD	TBD	TBD	TBD
WR-206	Stormwater	TBD	Status of Basin-wide Investigation? Additional Outfall and Up-the-Pipe Investigations?	TBD	Outfall SCM Controls being Designed, Constructed, or Monitored?	TBD	TBD	TBD	TBD	TBD
WR-208	Stormwater	TBD	Status of Basin-wide Investigation? Additional Outfall and Up-the-Pipe Investigations?	TBD	Outfall SCM Controls being Designed, Constructed, or Monitored?	TBD	TBD	TBD	TBD	TBD
WR-209	Stormwater	TBD	Status of Basin-wide Investigation? Additional Outfall and Up-the-Pipe Investigations?	TBD	Outfall SCM Controls being Designed, Constructed, or Monitored?	TBD	TBD	TBD	TBD	TBD

Table 9a. AOPC 9 - Downstream: Status of Adjacent or Imn

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
WR-205	Stormwater	TBD	Status of Basin-wide Investigation? Additional Outfall and Up-the-Pipe Investigations?	TBD	Outfall SCM Controls being Designed, Constructed, or Monitored?	TBD	TBD	TBD	TBD	TBD
WR-211	Stormwater	TBD	Status of Basin-wide Investigation? Additional Outfall and Up-the-Pipe Investigations?	TBD	Outfall SCM Controls being Designed, Constructed, or Monitored?	TBD	TBD	TBD	TBD	TBD
WR-510	Stormwater	TBD	Status of Basin-wide Investigation? Additional Outfall and Up-the-Pipe Investigations?	TBD	Outfall SCM Controls being Designed, Constructed, or Monitored?	TBD	TBD	TBD	TBD	TBD

Notes: See last page of table for full list of footnotes.

Table 9a. AOPC 9 - Downstream: Status of Adjacent or Imn

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Sources Upstream of AOPC 9 - Downstream [e]										
Gasco	See AOPC #9Upstream									
Siltronic	See AOPC #9Upstream									
Arkema	See AOPC #14									
Rhone Poulenc	See AOPC #14									

Notes:

[a] The information contained in this table is based on informatiormwater conveyance systems is from RI Table 4.4-4 and from the DEQ ECSI database. Please note that source inventory is an ongoing process by DEQ and EPA, in the form of 104(e) information requests, and this is not a final list

[b] SCE = Source Control Evaluation. This is the first step in DE

[c] SCD = Source Control Decision. DEQ provides EPA and itsne Report.

[d] SCM = Source Control Measures. The final step in the sourc

[e] Adjacent sites are those with potential sources/pathways that a

[f] This pathway is included for ECSI sites that have groundwate

p = DEQ's preliminary pathway determination
? = Unknown, typically due to lack of sampling information
Italicized cells indicate upland sites within current or former C
Grey shading indicates shared conveyances.

Reference Citations:

Ader. 2010. Email of January 8, 2010 to S. Trevathan, Integra
City of Portland. 2010. Stormwater Evaluation Report, City o
DEQ. 2009. Portland Harbor Joint Source Control Strategy -
KTA/TEC. 2010. Final Remedial Investigation Report, U.S. G

Acronyms:

AOC = Administrative Order of Consent
AOPC = area of potential concern
AS/SVE = air sparging/soil vapor extraction
AST = aboveground storage tank
BEHP = bis-2-(ethylhexyl) phthalate
BMP = best management practices
BnOH = benzyl alcohol
COI = chemical of interest
CSO = combined sewer overflow
DEQ = Oregon Department Of Environmental Quality
DNAPL = dense non-aqueous phase liquid
ECSI = Environmental Cleanup Site Inventory
EE/CA = engineering evaluation/cost analysis
EIB = in situ bioremediation
EPA = Environmental Protection Agency
FS = feasibility study

Table 9a. AOPC 9 - Downstream: Status of Adjacent or Imn

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results

GRH = gasoline-range hydrocarbon
GW = groundwater
JSCS = Joint Source Control Strategy
MS4 = municipal separate storm sewer systems
NA = not applicable
NAPL = non-aqueous phase liquid
NFA = no further action

Table 9b. AOPC 9 - Upstream: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
Sources Adjacent to AOPC 9 - Upstream [e]											
NW Natural - "Siltronic MGP" Site	Groundwater	Bayuk	84/183	6.6W	9U	**Metals** (Al, Ba, Be, Cd, Co, Cu, Fe, Pb, Mn, Hg, Ni, V, Zn), **TBT**, cyanide, **PAHs** (2-methylnaphthalene, acenapthene, anthracene, BAP, BAA, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, pyrene, total BFA, total high PAH, total low PAH), **SVOCs** (BnOH, carbazole, phenol), **dibenzofuran**, **total PCBs**, **pesticides** (4,4'-DDT, delta-HCH, endrin, endrin ketone, total DDx), **VOCs** (1,1-DCE, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, cis-1,2-dichloroethene, trans-1,2-	VOCs, SVOCs, PAHs, MGP TPH, metals, Other (e.g., cyanide)	Gasco disposal ponds and adjacent lowland areas. Gasco disposal piles, potential Gasco waste product fill (WWTP area and Fab 1 and parking lot), potential disposal area under SE end of Fab 1. Koppers via north drainage ditch and City Outfall 22C, former Western Transportation tanks, Olympic pipeline.	High	High (Siltronic portion of Segment 1); TBD for section of shoreline upstream of Segment 1 (i.e., Segment 3)	Complete (Siltronic portion of Segment 1); Ongoing (Segment 3). SCE for Segment 3 submitted (2/09). Supplemental shallow groundwater data being collected per MGP RI work plan (10/07. MGP RI report submittal anticipated 1st Qtr 2011.
NW Natural - "Siltronic MGP" Site	Stormwater						VOCs, SVOCs, PAHs, TPH, metals, Other (e.g., cyanide)			TBD	Evaluate MGP waste & contamination in shallow soils per MGP RI work plan (10/07) and combine with Siltronics stormwater system data. Siltronic submitted stormwater SCE report for property 9/10. MGP RI report submittal anticipated 1st Qtr 2011.

Table 9b. AOPC 9 - Upstream: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
NW Natural - "Siltronic MGP" Site	Overwater Activities					1,2-dichloroethene, trans-1,2-dichloroethene, ethylbenzene, isopropylbenzene, m,p-xylene, o-xylene, toluene, total xylene, TCE), **carbon disulfide**, TPH, **MGP TPH**	NA			None	NA
NW Natural - "Siltronic MGP" Site	Overland Transport						NA			None	NA
NW Natural - "Siltronic MGP" Site	Bank Erosion						VOCs, SVOCs, PAHs, MGP TPH, metals			TBD	Ongoing - Segment 1 (on Siltronic property): riverbank sampling occurring per sediment project AIR & Data QAPP. Ongoing - Segment 3: characterization of MGP waste & contamination along shoreline per NW Natural's "Siltronic MGP Site" RI work plan (10/07).

Notes: See last page of table for full list of footnotes.

Siltronic Corp. TCE Investigation	Groundwater	Bayuk	183	6.6W	9U	**Metals** (Al, Ba, Be, Cd, Co, Cu, Fe, Pb, Mn, Hg, Ni, V, Zn), **TBT**, cyanide, **PAHs** (2-methylnaphthalene, acenapthene, anthracene, BAP, BAA, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, pyrene, total BFA, total high PAH, total low PAH), **SVOCs** (BnOH, carbazole, phenol),	VOCs	Former TCE UST System located approximately 500 feet from Willamette River (source area)	High	NA. Siltronic submitted SCM evaluation	Complete (RI Report, MFA 2007)
Siltronic Corp. TCE Investigation	Stormwater						Metals, VOCs, PAHs, TPH, PCBs, phthalates	TBD		TBD	Ongoing (SCE report submitted 9/10)
Siltronic Corp. TCE Investigation	Overwater Activities						NA			None	NA

Table 9b. AOPC 9 - Upstream: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
Siltronic Corp. TCE Investigation	Overland Transport					**dibenzofuran**, **total PCBs**, **pesticides** (4,4'-DDT, delta-HCH, endrin, endrin ketone, total DDx), **VOCs** (1,1-DCE, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, ethylbenzene, isopropylbenzene, m,p-xylene, o-xylene, toluene, total xylene, TCE), **carbon disulfide**, TPH, **MGP TPH**	NA			None	NA
Siltronic Corp. TCE Investigation	Bank Erosion						NA			None	NA
Siltronic Corp. TCE Investigation	Other - Sediment contamination (Area 2) offshore of northern facility outfall (Outfall 001)	Bayuk	183	6.6W	9U		VOCs	Former TCE UST System located approximately 500 feet from Willamette River (source area). Historical source - no longer present.	High	TBD	NA (included in NW Natural/Siltronic in-water sediment action overseen by EPA)

Notes: See last page of table for full list of footnotes.

Table 9b. AOPC 9 - Upstream: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
NW Natural "Gasco" Site	Groundwater	Bayuk	84	6.4W	9U	**Metals** (Al, Ba, Be, Cd, Co, Cu, Fe, Pb, Mn, Hg, Ni, V, Zn), **TBT**, cyanide, **PAHs** (2-methylnaphthalene, acenapthene, anthracene, BAP, BAA, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, pyrene, total BFA, total high PAH, total low PAH), **SVOCs** (BnOH, carbazole, phenol), **dibenzofuran**, **total PCBs**, **pesticides** (4,4'-DDT, delta-HCH, endrin, endrin ketone, total DDx), **VOCs** (1,1-DCE, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, ethylbenzene, isopropylbenzene, m,p-xylene, o-xylene, toluene, total xylene, TCE), **carbon disulfide**, TPH	VOCs, SVOCs, PAHs, MGP TPH, metals, Other (e.g., cyanide)	Former retort area, former tar processing area, former light oil plant, Kopper Co. Plant/Current KI tank farm, former naphthalene plant, former coke oven area, former pitch plant/tar loading area, former tar settling ponds, former effluent ponds and overflow areas, former Kopper Co./Current KI pencil pitch storage area.	High	High	Complete
NW Natural "Gasco" Site	Stormwater						VOCs, SVOCs, PAHs, TPH, metals, Other (e.g., cyanide)			TBD	Stormwater Source Control Data Summary Report submitted 10/10)
NW Natural "Gasco" Site	Overwater Activities						PAHs, TPH			None	

Table 9b. AOPC 9 - Upstream: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
						TCE), carbon disulfide, TPH, MGP TPH					
NW Natural "Gasco" Site	Overland Transport						VOCs, SVOCs, PAHs, MGP TPH, metals, Other (e.g., cyanide)			p Low	Ongoing

Notes: See last page of table for full list of footnotes.

NW Natural "Gasco" Site	Bank Erosion					**Metals** (Al, Ba, Be, Cd, Co, Cu, Fe, Pb, Mn, Hg, Ni, V, Zn), cyanide, **TBT**, **PAHs** (2-methylnaphthalene, acenapthene, anthracene, BAP, BAA, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene,	VOCs, SVOCs, PAHs, MGP TPH, metals	Former retort area, former tar processing area, former light		High	Ongoing: riverbank sampling occurring per sediment project AIR & Data QAPP.

Table 9b. AOPC 9 - Upstream: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
NW Natural "Gasco" Site	Other - Koppers NPDES Permit	Bayuk	84	6.4W	9U	fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, pyrene, total BFA, total high PAH, total low PAH), SVOCs (BnOH, carbazole, phenol), **dibenzofuran**, **total PCBs**, **pesticides** (4,4'-DDT, delta-HCH, endrin, endrin ketone, total DDx), **VOCs** (1,1-DCE, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, ethylbenzene, isopropylbenzene, m,p-xylene, o-xylene, toluene, total xylene, TCE), **carbon disulfide**, TPH, **MGP TPH**	PAHs	oil plant, Kopper Co. Plant/Current KI tank farm, former naphthalene plant, former coke oven area, former pitch plant/tar loading area, former tar settling ponds, former effluent ponds and overflow areas, former Kopper Co./Current KI pencil pitch storage area.	High	TBD	Not applicable. There are no current discharges under the Koppers NPDES permit.
NW Natural "Gasco" Site	Other - NW Natural LNG NPDES Permit						PAHs			TBD	Not applicable. There are no current discharges under the NW Natural LNG NPDES permit.
Sources Upstream of AOPC 9 - Upstream [e]											
Arkema	See AOPC #14	McClincy	398								
Rhone Poulenc	See AOPC #14	Lacey	155								

Notes: See last page of table for full list of footnotes.

Table 9b. AOPC 9 - Upstream: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE

Notes:

[a] The information contained in this table is based on information obtained by LWG from correspondence with DEQ project managers and from reports in DEQ files as of ____ 2010. Information on sites upriver of RM 11 and sites within the shared st form of 104(e) information requests, and this is not a final list of sources that may be impacting the Study Area.

[b] SCE = Source Control Evaluation. This is the first step in DEQ's source evaluation process. The status of an SCE is either complete, ongoing, not started, TBD, or NA (for a pathway that is not applicable).

[c] SCD = Source Control Decision. DEQ provides EPA and its partners an opportunity to review (but not approve or disapprove) the DEQ SCD; the status of this review is described in the column, Status of EPA Review of SCE Decision, in the Milest

[d] SCM = Source Control Measures. The final step in the source evaluation process; the implementation status of the SCMs is either complete, ongoing, not started, TBD, or NA.

[e] Adjacent sites are those with potential sources/pathways that are immediately adjacent to the reference AOPC, and upstream sites are those potential sources/pathways that are upstream of the reference AOPC and not reference with any other AOPC

[f] This pathway is included for ECSI sites that have groundwater infiltration into the City storm sewer. For sites without this pathway, assume there is no groundwater infiltration into the City storm sewer.

p = DEQ's preliminary pathway determination
? = Unknown, typically due to lack of sampling information
Italicized cells indicate upland sites within current or former CSO basins. Non-italicized text indicates upland sites within stormwater basins.
Grey shading indicates shared conveyances.

Reference Citations:

DEQ. 2009. Portland Harbor Joint Source Control Strategy - Milestone Report. Prepared by the Oregon Department of Environmental Quality, Portland, OR. December 2009.

Acronyms:

AOC = Administrative Order of Consent
AOPC = area of potential concern
AS/SVE = air sparging/soil vapor extraction
AST = aboveground storage tank
BEHP = bis-2-(ethylhexyl) phthalate
BMP = best management practices
BnOH = benzyl alcohol
COI = chemical of interest
CSO = combined sewer overflow
DEQ = Oregon Department Of Environmental Quality
DNAPL = dense non-aqueous phase liquid
ECSI = Environmental Cleanup Site Inventory
EE/CA = engineering evaluation/cost analysis
EIB = in situ bioremediation
EPA = Environmental Protection Agency
FS = feasibility study
GRH = gasoline-range hydrocarbon
GW = groundwater
JSCS = Joint Source Control Strategy
MS4 = municipal separate storm sewer systems
NA = not applicable
NAPL = non-aqueous phase liquid
NFA = no further action
NPDES = National Pollutant Discharge Elimination System
NS = no sampling of upland COIs reported. For stormwater/wastewater, no sampling beyond permit requirements reported.
ODOT = Oregon Department Of Transportation
OERS = Oregon Emergency Response System
PAH = polycyclic aromatic hydrocarbon
PCB = polyclorinated biphenyl
PM = project manager
POTW = publicly owned treatment works
PPA = Prospective Purchaser Agreement
RI = remedial investigation
ROD = record of decision
RP = responsible party
SVOC = semivolatile organic compound
SW = stormwater
SWPCP = stormwater pollution control plan
TBT - tributyl tin
TCE = trichloroethene
TPH = total petroleum hydrocarbon
UIC = underground injection control
UST = underground storage tank
VOC = volatile organic compound
XPA = expanded preliminary assessment

SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Complete Pathway	Siltronic portion of Segment 1 see corresponding entries under "NW Natural - 'Gasco Site." TBD (Segment 3)	Siltronic portion of Segment 1 see corresponding entries under "NW Natural - 'Gasco Site." TBD (Segment 3)	Siltronic portion of Segment 1 see corresponding entries under "NW Natural - 'Gasco Site." TBD (Segment 3)	Siltronic portion of Segment 1 see corresponding entries under "NW Natural - 'Gasco Site." TBD (Segment 3)	Siltronic portion of Segment 1 see corresponding entries under "NW Natural - 'Gasco Site." TBD (Segment 3)	TBD	TBD	NA
Complete Pathway	TBD	TBD	TBD	TBD	TBD	TBD	TBD	NA

SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
NA	NA	NA	NA	NA	NA	NA	NA	NA
Incomplete Pathway	NA	NA	NA	NA	NA	NA	NA	NA
TBD: Siltronic portion of Segment 1 and shoreline Segment 3	TBD: Siltronic portion of Segment 1 and shoreline Segment 3. Available data for Segment 3 indicates naphthalene exceeded JSCS values in 3 cases (Anchor QEA 2009)	Segment 1: Control of bank erosion will be designed and implemented as part of in-water cleanup under EPA authority. TBD for Segment 3.	Segment 1: NW Natural, EPA, and DEQ agreed riverbank remediation will take place concurrently with the construction phase of the NW Natural/Siltronic in-water sediment action, both to be overseen by EPA. AOC for in-water work finalized September 2009. TBD for Segment 3.	Complete data collection under sediment project AIR & Data Gaps QAPP and MGP RI. The MGP RI is projected for submittal 1st Qtr 2011.	TBD	TBD	TBD	NA
Complete Pathway	Medium priority pathway; Source Control Warranted	Complete (2/08)	Enhanced in situ bioremediation (EIB) in source area of TCE release, coordination with NW Natural's hydraulic containment system along shoreline	GW monitoring within and downgradient of source area (i.e., former UST system) to assess EIB performance and effectiveness	EIB implemented July 2009, effective at reducing TCE in source area, evaluation of daughter product effects ongoing	Contingency measures may be triggered based upon GW monitoring data and trends	Continued monitoring	Remedial Action Objective 1 for TCE met in source area (12/09); evaluation of EIB performance downgradient of source area is ongoing
Complete Pathway	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
NA	NA	NA	NA	NA	NA	NA	NA	NA

SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA
Area 2 sediment contamination will be included in NW Natural/Siltronic in-water sediment action overseen by EPA. AOC for in-water work finalized 9/09.	NA	NA	NA	NA	NA	NA	NA	NA

SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Complete Pathway	Groundwater source control warranted along Gasco/Siltronic shoreline Segments 1 and 2; DNAPL control needed along southern portion of Segment 1 on Gasco site.	Complete: Groundwater & DNAPL FFS for Segments 1 and 2 submitted (11/07); DEQ review complete (3/08). SCMs selected include, hydraulic containment along Gasco shoreline and northern end of Siltronic site (i.e., Segments 1 and 2); vertical barrier along portion of Segment 1 where DNAPL occurs; and DNAPL removal beneath former effluent ponds.	Ongoing: Groundwater & DNAPL Source Control Interim Design Report submitted (11/09); DEQ review complete (3/10). DEQ conditionally approved groundwater source control on Siltronic site (southern end of Segment 1) and the northern portion of Gasco (i.e., Segment 2). Due to potential DNAPL exacerbation and the timing of implementation, DEQ deferred vertical barrier, DNAPL removal, and groundwater SCMs along portion of Segment 1 where DNAPL occurs to uplands FS.	NW Natural formally disputed DEQ decision regarding portion of Segment 1 where DNAPL occurs. Dispute resolution process ongoing.	Not Started	TBD	TBD	TBD
Complete Pathway	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
No known current sources (spills reported to OERS)	NA	NA	NA	NA	NA	NA	NA	NA

SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
p Complete Pathway	TBD	Potential runoff in eastern corner of site will be controlled by future bank remedial work which will be led by EPA.	NW Natural, EPA, and DEQ agreed riverbank remediation will take place concurrently with the construction phase of the NW Natural/Siltronic in-water sediment action, both to be overseen by EPA. AOC for in-water work finalized September 2009.	TBD	NA	NA	NA	NA
Complete Pathway	TBD	Control of bank erosion will be designed and implemented as part of in-water cleanup under EPA authority.	NW Natural, EPA, and DEQ agreed riverbank remediation will take place concurrently with the construction phase of the NW Natural/Siltronic in-water sediment action, both to be overseen by EPA. AOC for in-water work finalized September 2009	Complete data collection under sediment project AIR & Data Gaps QAPP.	TBD	TBD	TBD	TBD

SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
TBD	Koppers discontinued discharge to Doane Creek via the NPDES permit and currently discharges to the City of Portland sanitary sewer under a POTW permit.	TBD	TBD	TBD	TBD	TBD	TBD	TBD
TBD	NW Natural discontinued discharge to the Willamette River via the NPDES permit and currently discharges pre-treated water to the City of Portland sanitary sewer under a POTW permit.	TBD	TBD	TBD	TBD	TBD	TBD	TBD

SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results

ormwater conveyance systems is from RI Table 4.4-4 and from the DEQ ECSI database. Please note that source inventory is an ongoing process by DEQ and EPA, in the

one Report.

Table 10. AOPC 10: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
Sources Adjacent to AOPC 10 [e]											
POP - Terminal 4, Auto Storage	Groundwater	Gainer	172	5E	10	Hg	NA	No known sources.	NFA, Low	Low	Complete
POP - Terminal 4, Auto Storage	Stormwater						None reported			Low	Incomplete Pathway
POP - Terminal 4, Auto Storage	Overwater Activities						NA			None	NA
POP - Terminal 4, Auto Storage	Overland Transport						NA			None	NA
Willamette Cove	Bank Erosion						NA			Low	Complete
Sources Upstream of AOPC 10 [e]											
Mar Com North	See AOPC #11	Romero	4797								

Notes:

[a] The information contained in this table is based on information obtained by LWG from correspondence with DEQ project managers and from reports in DEQ files as of ____ 2010. Information on sites upriver of RM 11 and sites
DEQ and EPA, in the form of 104(e) information requests, and this is not a final list of sources that may be impacting the Study Area.

[b] SCE = Source Control Evaluation. This is the first step in DEQ's source evaluation process. The status of an SCE is either complete, ongoing, not started, TBD, or NA (for a pathway that is not applicable).

[c] SCD = Source Control Decision. DEQ provides EPA and its partners an opportunity to review (but not approve or disapprove) the DEQ SCD; the status of this review is described in the column, Status of EPA Review of SCE Dec

[d] SCM = Source Control Measures. The final step in the source evaluation process; the implementation status of the SCMs is either complete, ongoing, not started, TBD, or NA.

[e] Adjacent sites are those with potential sources/pathways that are immediately adjacent to the reference AOPC, and upstream sites are those potential sources/pathways that are upstream of the reference AOPC and not reference wit

[f] This pathway is included for ECSI sites that have groundwater infiltration into the City storm sewer. For sites without this pathway, assume there is no groundwater infiltration into the City storm sewer.

p = DEQ's preliminary pathway determination
? = Unknown, typically due to lack of sampling information
Italicized cells indicate upland sites within current or former CSO basins. Non-italicized text indicates upland sites within stormwater basins.
Grey shading indicates shared conveyances.

Reference Citations:

DEQ. 2009. Portland Harbor Joint Source Control Strategy - Milestone Report. Prepared by the Oregon Department of Environmental Quality, Portland, OR. December 2009.

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Acronyms:

AOC = Administrative Order of Consent
AOPC = area of potential concern
AS/SVE = air sparging/soil vapor extraction
AST = aboveground storage tank
BEHP = bis-2-(ethylhexyl) phthalate
NPDES = National Pollutant Discharge Elimination System
NS = no sampling of upland COIs reported. For stormwater/wastewater, no sampling beyond permit requirements reported.
ODOT = Oregon Department Of Transportation
OERS = Oregon Emergency Response System
PAH = polycyclic aromatic hydrocarbon

Table 10. AOPC 10: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE

BMP = best management practices
BnOH = benzyl alcohol
COI = chemical of interest
CSO = combined sewer overflow
DEQ = Oregon Department Of Environmental Quality
DNAPL = dense non-aqueous phase liquid
ECSI = Environmental Cleanup Site Inventory
EE/CA = engineering evaluation/cost analysis
EIB = in situ bioremediation
EPA = Environmental Protection Agency
FS = feasibility study
GRH = gasoline-range hydrocarbon
GW = groundwater
JSCS = Joint Source Control Strategy
MS4 = municipal separate storm sewer systems
NA = not applicable
NAPL = non-aqueous phase liquid
NFA = no further action
PCB = polyclorinated biphenyl
PM = project manager
POTW = publicly owned treatment works
PPA = Prospective Purchaser Agreement
RI = remedial investigation
ROD = record of decision
RP = responsible party
SVOC = semivolatile organic compound
SW = stormwater
SWPCP = stormwater pollution control plan
TBT - tributyl tin
TCE = trichloroethene
TPH = total petroleum hydrocarbon
UIC = underground injection control
UST = underground storage tank
VOC = volatile organic compound
XPA = expanded preliminary assessment

Table 10. AOPC 10: Status of Adjacent or Immediately Upst

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Sources Adjacent to AOPC 10 [e]										
POP - Terminal 4, Auto Storage	Groundwater	Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
POP - Terminal 4, Auto Storage	Stormwater	Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
POP - Terminal 4, Auto Storage	Overwater Activities	No known current sources (spills reported to OERS)	NA	NA	NA	NA	NA	NA	NA	NA
POP - Terminal 4, Auto Storage	Overland Transport	NA	NA	NA	NA	NA	NA	NA	NA	NA
Willamette Cove	Bank Erosion	Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
Sources Upstream of AOPC 10 [e]										
Mar Com North	See AOPC #11									

Notes:

[a] The information contained in this table is based on informatiwithin the shared stormwater conveyance systems is from RI Table 4.4-4 and from the DEQ ECSI database. Please note that source inventory is an ongoing process by DEQ and EPA, in the form of 104(e) information requests, an

[b] SCE = Source Control Evaluation. This is the first step in DE

[c] SCD = Source Control Decision. DEQ provides EPA and its ision, in the Milestone Report.

[d] SCM = Source Control Measures. The final step in the sourc

[e] Adjacent sites are those with potential sources/pathways that h any other AOPC.

[f] This pathway is included for ECSI sites that have groundwate

p = DEQ's preliminary pathway determination
? = Unknown, typically due to lack of sampling information
Italicized cells indicate upland sites within current or former
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Acronyms:

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AST = aboveground storage tank
BEHP = bis-2-(ethylhexyl) phthalate

Table 10. AOPC 10: Status of Adjacent or Immediately Upst

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results

BMP = best management practices
BnOH = benzyl alcohol
COI = chemical of interest
CSO = combined sewer overflow
DEQ = Oregon Department Of Environmental Quality
DNAPL = dense non-aqueous phase liquid
ECSI = Environmental Cleanup Site Inventory
EE/CA = engineering evaluation/cost analysis
EIB = in situ bioremediation
EPA = Environmental Protection Agency
FS = feasibility study
GRH = gasoline-range hydrocarbon
GW = groundwater
JSCS = Joint Source Control Strategy
MS4 = municipal separate storm sewer systems
NA = not applicable
NAPL = non-aqueous phase liquid
NFA = no further action

Table 11. AOPC 11: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	DEQ Site Priority Level	DEQ Pathway Priority Level	Status of SCE
Sources Adjacent to AOPC 11 [e]											
Mar Com North	Groundwater	Romero	4797	5.6E	11	**Metals** (Cu, Hg, Ag, Zn), **TBT**, **total low PAHs**, **BnOH**, **total PCBs**, **pesticides** (4,4'-DDT, delta-HCH, total DDx)	NA	Sandblast grit piles, contaminated soil near top of riverbank.	NFA, p Medium	Low	Complete (December 2003)
Mar Com North	Stormwater						NA			Low	Complete (December 2003)
Mar Com North	Overwater Activities						NA			None	NA
Mar Com North	Overland Transport						TPH, metals, PAHs			Low	Complete (December 2003)
Mar Com North	Bank Erosion						VOCs, SVOCs, PAHs, TPH, metals, butyltins, phthalates			p Med	Not started
Mar Com South (Site not owned by Port)	Groundwater	Romero	2350	5.8E	11		VOCs, SVOCs, PAHs, TPH, metals, butyltins, other	Former sawmill, Building C, steel fabrication building, former warehouse, machine shop, compressor shed,	p High	p Med	Complete (DEQ PM)
Mar Com South (Site not owned by Port)	Stormwater						VOCs, SVOCs, PAHs, TPH, PCBs, metals, butyltins, phthalates			TBD	Complete (DEQ PM)
Mar Com South (Site not owned by Port)	Overwater Activities						NA			None	NA

Table 11. AOPC 11: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	DEQ Site Priority Level	DEQ Pathway Priority Level	Status of SCE
Mar Com South (Site not owned by Port)	Overland Transport						VOCs, SVOCs, PAHs, TPH, PCBs, metals, butyltins, phthalates	paint booth, contaminated soil in knoll and SW corner		p High	Complete (DEQ PM)
Mar Com South (Site not owned by Port)	Bank Erosion						VOCs, SVOCs, PAHs, TPH, metals, butyltins, phthalates			p Med	Site divided into operable units. DEQ is awaiting responseMar Com South site property owner on bank

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Table 11. AOPC 11: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	DEQ Site Priority Level	DEQ Pathway Priority Level	Status of SCE
Shared Conveyance Systems											
OF52	Stormwater	Tarnow	2425	5.8E	11	**Metals** (Cu, Hg, Ag, Zn), **TBT**, **total low PAHs**, **BnOH**, **total PCBs**, **pesticides** (4,4'-DDT, delta-HCH, total DDx)	PCBs, copper (City of Portland 2010)	Drains 20 mixed use (mostly light industry and residential) acres in stormwater basin. CSO basin was controlled in 1995 and no overflows have occurred since control. See below for identified sources in storm basin	Medium	p Medium	p Complete (2010)
Crawford Street	Stormwater (roof drains and parking area)	Rapp	2363	6.3E	11		VOCs, PAHs, TPH, PCBs, metals	TBD	p Low	TBD	Anticipated 2nd Q 2011
Unocal Service Station #3911	Stormwater	Wistar	1593	5.5E	11		None	No current pathway			

Table 11. AOPC 11: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	DEQ Site Priority Level	DEQ Pathway Priority Level	Status of SCE
OF52A	Stormwater	Tarnow	2425	5.6E	11		None (City of Portland 2010)	Drains 21 light industrial acres and 4 residential acres. No ECSI sites have been identified in this basin.	Low	p Low	p Complete (2010)
Sources Upstream of AOPC 11 [e]											
City of Portland BES	See AOPC #12	Pugh	2452								
Crawford Street	See AOPC #12	Rapp	2363								

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Table 11. AOPC 11: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	DEQ Site Priority Level	DEQ Pathway Priority Level	Status of SCE
Notes:				**3.6E**							

[a] The information contained in this table is based on information obtained by LWG from correspondence with DEQ project managers and from reports in DEQ files as of ____ 2010. Information on sites upriver of RM 11 and sites
DEQ and EPA, in the form of 104(e) information requests, and this is not a final list of sources that may be impacting the Study Area.

[b] SCE = Source Control Evaluation. This is the first step in DEQ's source evaluation process. The status of an SCE is either complete, ongoing, not started, TBD, or NA (for a pathway that is not applicable).

[c] SCD = Source Control Decision. DEQ provides EPA and its partners an opportunity to review (but not approve or disapprove) the DEQ SCD; the status of this review is described in the column, Status of EPA Review of SCE Dec

[d] SCM = Source Control Measures. The final step in the source evaluation process; the implementation status of the SCMs is either complete, ongoing, not started, TBD, or NA.

[e] Adjacent sites are those with potential sources/pathways that are immediately adjacent to the reference AOPC, and upstream sites are those potential sources/pathways that are upstream of the reference AOPC and not reference wit

[f] This pathway is included for ECSI sites that have groundwater infiltration into the City storm sewer. For sites without this pathway, assume there is no groundwater infiltration into the City storm sewer.

p = DEQ's preliminary pathway determination
? = Unknown, typically due to lack of sampling information
Italicized cells indicate upland sites within current or former CSO basins. Non-italicized text indicates upland sites within stormwater basins.
Grey shading indicates shared conveyances.

Reference Citations:

City of Portland. 2010. Stormwater Evaluation Report, City of Portland Outfall Project, ECSI 2425. City of Portland, OR. February 2010.

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Acronyms:

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AS/SVE = air sparging/soil vapor extraction
AST = aboveground storage tank
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BMP = best management practices
BnOH = benzyl alcohol
COI = chemical of interest
CSO = combined sewer overflow
DEQ = Oregon Department Of Environmental Quality
DNAPL = dense non-aqueous phase liquid
ECSI = Environmental Cleanup Site Inventory
EE/CA = engineering evaluation/cost analysis
EIB = in situ bioremediation
EPA = Environmental Protection Agency
FS = feasibility study
GRH = gasoline-range hydrocarbon
GW = groundwater
JSCS = Joint Source Control Strategy
MS4 = municipal separate storm sewer systems
NA = not applicable
NAPL = non-aqueous phase liquid
NFA = no further action
NPDES = National Pollutant Discharge Elimination System
NS = no sampling of upland COIs reported. For stormwater/wastewater, no sampling beyond permit requirements reported.
ODOT = Oregon Department Of Transportation
OERS = Oregon Emergency Response System
PAH = polycyclic aromatic hydrocarbon
PCB = polyclorinated biphenyl
PM = project manager
POTW = publicly owned treatment works
PPA = Prospective Purchaser Agreement
RI = remedial investigation
ROD = record of decision
RP = responsible party
SVOC = semivolatile organic compound
SW = stormwater
SWPCP = stormwater pollution control plan
TBT - tributyl tin
TCE = trichloroethene
TPH = total petroleum hydrocarbon
UIC = underground injection control
UST = underground storage tank
VOC = volatile organic compound
XPA = expanded preliminary assessment

Table 11. AOPC 11: Status of Adjacent or Immediately Upst

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Sources Adjacent to AOPC 11 [e]										
Mar Com North	Groundwater	Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
Mar Com North	Stormwater	Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
Mar Com North	Overwater Activities	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mar Com North	Overland Transport	p Complete Pathway?	Overland soil transport suspected migration pathway.	Completed (5/07)	Port of Portland condemned property, Port conducted soil removal as prescribed in ROD May 2007	NA	NA	NA	NA	NA
Mar Com North	Bank Erosion	Deferred investigation of beach to Mar Com South Parcel . DEQ requesting work be done by	NA	NA	NA	NA	NA	NA	NA	NA
Mar Com South (Site not owned by Port)	Groundwater	No further action recommended (DEQ PM)	No further action recommended (DEQ PM)	TBD	No further action recommended (DEQ PM)	TBD	TBD	Completed	TBD	TBD
Mar Com South (Site not owned by Port)	Stormwater	No further action recommended (DEQ PM)	No further action recommended (DEQ PM)	TBD	No further fction recommended (DEQ PM)	TBD	TBD	Completed	TBD	TBD
Mar Com South (Site not owned by Port)	Overwater Activities	NA	No current overwater activities, only historical	NA	NA	NA	NA	NA	NA	NA

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Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Mar Com South (Site not owned by Port)	Overland Transport	No further action recommended (DEQ PM)	No further action recommended (DEQ PM)	TBD	Interim remedial action and source removal conducted in 2008. No further action recommended (DEQ PM)	TBD	Interim remedial action and source (surficial sanblast grit and soil) removal conducted in 2008 (DEQ PM).	Completed	TBD	TBD
Mar Com South (Site not owned by Port)	Bank Erosion	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

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Table 11. AOPC 11: Status of Adjacent or Immediately Upst

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Shared Conveyance Systems										
OF52	Stormwater	p Complete Pathway	Inline solids samples indicate potential legacy sources of PCBs and metals not associated with ECSI sites. See below for identified sources.	Ongoing	BES providing technical assistance to 2 sites with potential metal sources. 7 properties (2 industrial and 5 residential) implemented treatment per Stormwater Manual requirements. Line cleaning conducted to remove solids. Onsite SCMs being implemented at ECSI sites (see below)	City conducting additional evaluation to confirm that all sources have been identified	Continue City MS4 and watershed SC programs to improve stormwater quality	TBD	TBD	TBD
Crawford Street	Stormwater (roof drains and parking area)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Unocal Service Station #3911	Stormwater	Not in Milestone Report NFA (1994). Located in CSO basin that has been controlled; CSO occurance very infrequent.								

Table 11. AOPC 11: Status of Adjacent or Immediately Upst

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
OF52A	Stormwater	p Insignificant Pathway	One property implemented treatment per Stormwater Manual requirements. Stormwater data confirms insignificant contaminant pathway. Continue City MS4 and watershed SC programs. SCE to be submitted to DEQ.	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Sources Upstream of AOPC 11 [e]										
City of Portland BES	See AOPC #12									
Crawford Street	See AOPC #12									

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Table 11. AOPC 11: Status of Adjacent or Immediately Upst

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results

Notes:

[a] ~~The information contained in this table is based on informatic~~within the shared stormwater conveyance systems is from RI Table 4.4-4 and from the DEQ ECSI database. Please note that source inventory is an ongoing process by DEQ and EPA, in the form of 104(e) information requests, an

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Italicized cells indicate upland sites within current or former C
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DNAPL = dense non-aqueous phase liquid
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EE/CA = engineering evaluation/cost analysis
EIB = in situ bioremediation
EPA = Environmental Protection Agency
FS = feasibility study
GRH = gasoline-range hydrocarbon
GW = groundwater
JSCS = Joint Source Control Strategy
MS4 = municipal separate storm sewer systems
NA = not applicable
NAPL = non-aqueous phase liquid
NFA = no further action

Table 12. AOPC 12: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	DEQ Site Priority Level	DEQ Pathway Priority Level	Status of SCE
Sources Adjacent to AOPC 12 [e]											
BES Water Pollution Control Laboratory	Groundwater	Pugh	2452	6E	12		None	Site was remediated in 1995 and redeveloped as a laboratory and offices in 1996. Site stormwater is treated per the BES Stormwater Manual by onsite infiltration swales and/or the OF50 retention pond (no overland flow to river). River bank was capped, vegetated, and armored during site development. No current overwater activities.	Low	Low	PA Completed (2006); additional information 2009
BES Water Pollution Control Laboratory	Stormwater						None			Low	PA Completed (2006); additional information 2009
BES Water Pollution Control Laboratory	Overwater Activities						NA			None	NA
BES Water Pollution Control Laboratory	Overland Transport						NA			None	PA Completed (2006); additional information 2009
Willamette Cove	Bank Erosion						None			Low	PA Completed (2006); additional information 2009
Crawford Street Corp.	Groundwater					**Metals** (Cu, Hg), **TBT, BnOH, total PCBs**	None reported	Historical and current manufacturing operations		p Low	Anticipated 2nd Q 2011
Crawford Street Corp.	Stormwater						VOCs, PAHs, TPH, PCBs, metals			TBD	Anticipated 2nd Q 2011

Table 12. AOPC 12: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	DEQ Site Priority Level	DEQ Pathway Priority Level	Status of SCE
Crawford Street Corp.	Overwater Activities	Rapp	2363	6.3 E	12		NA	operations, historical and current site runoff, sandblast fill material, former UST, electrical transformer, railroad right-of-way, historical dock operations, historical private outfalls, beach metal debris	p Low	None	NA
Crawford Street Corp.	Overland Transport						VOCs, PAHs, TPH, PCBs, metals			TBD	Anticipated 2nd Q 2011
Crawford Street Corp.	Bank Erosion						VOCs, PAHs, TPH, PCBs, metals, phthalates			TBD	Anticipated 2nd Q 2011

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Table 12. AOPC 12: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	DEQ Site Priority Level	DEQ Pathway Priority Level	Status of SCE
Shared Conveyance Systems											
OF50	Stormwater	Tarnow	2425	5.9E	12	**Metals** (Cu, Hg), **TBT**, **BnOH**, **total PCBs**	None (City of Portland 2010)	Drains 39 acres (mixed residential, commercial, and light industrial)	Low	p Low	p Complete (2010)
BES Water Pollution Control Laboratory	Stormwater	Pugh	2452	6E	12		See above for site stormwater information				
Crawford Street	Stormwater /Sheet flow from Lampros Steel property to WPCL property (and then to OF50)	Rapp	2363	6.3E	11		VOCs, PAHs TPH, PCBs, metals	Historical and current manufacturing operations, sandblast fill material	p Low	TBD	Ongoing (anticipated Fall 2010)

Table 12. AOPC 12: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	DEQ Site Priority Level	DEQ Pathway Priority Level	Status of SCE
WR-514	Stormwater	NA	NA	5.8E	12		?	ODOT outfall draining St Johns Bridge	TBD	TBD	TBD
Sources Upstream of AOPC 12 [e]											
Willamette Cove	See AOPC #13	Thiessen	2363								

Notes: See last page of table for full list of footnotes.

Table 12. AOPC 12: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	DEQ Site Priority Level	DEQ Pathway Priority Level	Status of SCE

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[f] This pathway is included for ECSI sites that have groundwater infiltration into the City storm sewer. For sites without this pathway, assume there is no groundwater infiltration into the City storm sewer.

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Italicized cells indicate upland sites within current or former CSO basins. Non-italicized text indicates upland sites within stormwater basins.
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CSO = combined sewer overflow
DEQ = Oregon Department Of Environmental Quality
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SVOC = semivolatile organic compound
SW = stormwater
SWPCP = stormwater pollution control plan
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XPA = expanded preliminary assessment

Table 12. AOPC 12: Status of Adjacent or Immediately Upst

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Sources Adjacent to AOPC 12 [e]										
BES Water Pollution Control Laboratory	Groundwater	Incomplete Pathway	WPCL determined not to be a current source to the river. SCD and NFA issued in 2010.	NA	NA	NA	NA	NA	NA	NA
BES Water Pollution Control Laboratory	Stormwater	Insignificant Pathway	See above; SCD and NFA issued in 2010	NA	NA	NA	NA	NA	NA	NA
BES Water Pollution Control Laboratory	Overwater Activities	NA	NA	NA	NA	NA	NA	NA	NA	NA
BES Water Pollution Control Laboratory	Overland Transport	Insignificant Pathway	See above; SCD and NFA issued 2010	NA	NA	NA	NA	NA	NA	NA
Willamette Cove	Bank Erosion	Insignificant Pathway	See above; SCD and NFA issued 2010	NA	NA	NA	NA	NA	NA	NA
Crawford Street Corp.	Groundwater	Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
Crawford Street Corp.	Stormwater	TBD	Stormwater sampling per JSCS	TBD	TBD	TBD	TBD	TBD	TBD	TBD

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Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Crawford Street Corp.	Overwater Activities	NA	NA	NA	NA	NA	NA	NA	NA	NA
Crawford Street Corp.	Overland Transport	TBD	See stormwater pathway	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Crawford Street Corp.	Bank Erosion	TBD	TBD	TBD	RP removed black sand from beach and bank (October 2001), residual contamination exists on beach, bank was replaced with clean fill	TBD	TBD	TBD	TBD	TBD

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		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Shared Conveyance Systems										
OF50	Stormwater	p Insignificant Pathway	Stormwater treatment facility at end of outfall since 1995. Five properties implemented treatment per Stormwater Manual requirements. Stormwater data indicates insignificant contaminant pathway. Continue City MS4 and watershed SC programs. SCE to be submitted to DEQ.	TBD	TBD	TBD	TBD	TBD	TBD	TBD
BES Water Pollution Control Laboratory	Stormwater									
Crawford Street	Stormwater /Sheet flow from Lampros Steel property to WPCL property (and then to OF50)	TBD	Erodible soil and stormwater sampling per JSCS	TBD	TBD	TBD	TBD	TBD	TBD	TBD

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		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
WR-514	Stormwater	TBD	Status of Basin-wide Investigation? Additional Outfall and Up-the-Pipe Investigations?	TBD	Outfall SCM Controls being Designed, Constructed, or Monitored?	TBD	TBD	TBD	TBD	TBD
Sources Upstream of AOPC 12 [e]										
Willamette Cove	See AOPC #13									

Notes: See last page of table for full list of footnotes.

Table 12. AOPC 12: Status of Adjacent or Immediately Upst

Site Name	Potential Contaminant Migration Pathway	SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
		SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results

Notes:

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GRH = gasoline-range hydrocarbon
GW = groundwater
JSCS = Joint Source Control Strategy
MS4 = municipal separate storm sewer systems
NA = not applicable
NAPL = non-aqueous phase liquid
NFA = no further action

Table 13. AOPC 13: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
Sources Adjacent to AOPC 13 [e]											
Willamette Cove	Groundwater	Thiessen	2066	6.8E	13	**Metals** (Cd, Cu, Hg, Zn), **total low PAHs, BEHP**, **SVOCs** (BnOH, carbazole), **total PCBs, total DDx**	VOCs, PAHs, TPH, metals	Impacts to soil and groundwater from historical industrial activities	p Low	p Low	SCE sampling completed Sept. 2010 (DEQ PM)
Willamette Cove	Stormwater						NA			None	NA
Willamette Cove	Overwater Activities						NA			None	NA
Willamette Cove	Overland Transport						NA			p Low	SCE sampling completed Sept. 2010 (DEQ PM)
Willamette Cove	Bank Erosion						PAHs, metals, PCBs			p Low	SCE sampling completed Sept. 2010 (DEQ PM)
Willamette Cove	Other - Beach Area Removal						PAHs, metals, TPH			p Low	Inves. Expanded Sept. 2010 (DEQ PM)
Shared Conveyance Systems											

Table 13. AOPC 13: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE
OF49	Stormwater	Tarnow	2425	6.5E	13	**Metals** (Cd, Cu, Hg, Zn), **total low PAHs**, **BEHP**, **SVOCs** (BnOH, carbazole), **total PCBs**, **total DDx**	None (City of Portland 2010)	Drains 26 residential acres and 5 commercial acres. No ECSI sites have been identified in this basin.	Low	p Low	p Complete (2010)
Sources Upstream of AOPC 13 [e]											
McCormick and Baxter	See AOPC #15	Mazano	74								

Notes: See last page of table for full list of footnotes.

Table 13. AOPC 13: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	Status of SCE

Notes:

[a] The information contained in this table is based on information obtained by LWG from correspondence with DEQ project managers and from reports in DEQ files as of ____ 2010. Information on sites upriver of RM 11 and sites
DEQ and EPA, in the form of 104(e) information requests, and this is not a final list of sources that may be impacting the Study Area.

[b] SCE = Source Control Evaluation. This is the first step in DEQ's source evaluation process. The status of an SCE is either complete, ongoing, not started, TBD, or NA (for a pathway that is not applicable).

[c] SCD = Source Control Decision. DEQ provides EPA and its partners an opportunity to review (but not approve or disapprove) the DEQ SCD; the status of this review is described in the column, Status of EPA Review of SCE Dec

[d] SCM = Source Control Measures. The final step in the source evaluation process; the implementation status of the SCMs is either complete, ongoing, not started, TBD, or NA.

[e] Adjacent sites are those with potential sources/pathways that are immediately adjacent to the reference AOPC, and upstream sites are those potential sources/pathways that are upstream of the reference AOPC and not reference wit

[f] This pathway is included for ECSI sites that have groundwater infiltration into the City storm sewer. For sites without this pathway, assume there is no groundwater infiltration into the City storm sewer.

p = DEQ's preliminary pathway determination
? = Unknown, typically due to lack of sampling information
Italicized cells indicate upland sites within current or former CSO basins. Non-italicized 3.6E
Grey shading indicates shared conveyances.

Reference Citations:

City of Portland. 2010. Stormwater Evaluation Report, City of Portland Outfall Project, ECSI 2425. City of Portland, OR. February 2010.

DEQ. 2009. Portland Harbor Joint Source Control Strategy - Milestone Report. Prepared by the Oregon Department of Environmental Quality, Portland, OR. December 2009.

Acronyms:

AOC = Administrative Order of Consent
AOPC = area of potential concern
AS/SVE = air sparging/soil vapor extraction
AST = aboveground storage tank
BEHP = bis-2-(ethylhexyl) phthalate
BMP = best management practices
BnOH = benzyl alcohol
COI = chemical of interest
CSO = combined sewer overflow
DEQ = Oregon Department Of Environmental Quality
DNAPL = dense non-aqueous phase liquid
ECSI = Environmental Cleanup Site Inventory
EE/CA = engineering evaluation/cost analysis
EIB = in situ bioremediation
EPA = Environmental Protection Agency
FS = feasibility study
GRH = gasoline-range hydrocarbon
GW = groundwater
JSCS = Joint Source Control Strategy
MS4 = municipal separate storm sewer systems
NA = not applicable
NAPL = non-aqueous phase liquid
NFA = no further action
NPDES = National Pollutant Discharge Elimination System
NS = no sampling of upland COIs reported. For stormwater/wastewater, no sampling beyond permit requirements reported.
ODOT = Oregon Department Of Transportation
OERS = Oregon Emergency Response System
PAH = polycyclic aromatic hydrocarbon
PCB = polyclorinated biphenyl
PM = project manager
POTW = publicly owned treatment works
PPA = Prospective Purchaser Agreement
RI = remedial investigation
ROD = record of decision
RP = responsible party
SVOC = semivolatile organic compound
SW = stormwater
SWPCP = stormwater pollution control plan
TBT - tributyl tin
TCE = trichloroethene
TPH = total petroleum hydrocarbon
UIC = underground injection control
UST = underground storage tank
VOC = volatile organic compound
XPA = expanded preliminary assessment

SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
TBD	TBD (waiting on SCE to be completed)	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Insignificant Pathway	No actions recommended, no SCMs needed	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA
TBD	TBD (waiting on SCE to be completed)	TBD	Removal of contaminated soil completed June 2008	TBD	TBD	TBD	TBD	TBD
TBD	TBD (waiting on SCE to be completed)	TBD	TBD	TBD	TBD	TBD	TBD	TBD
p Complete Pathway	TBD (waiting on SCE to be completed)	Complete	Partial source removal completed on beach October 2004	NA	NA	NA	NA	NA

SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
SCD [c]	**SCE Findings and Next Steps**	**Status of SCM Selection**	**SCD**	**Next Steps and Schedule**	**Status of SCM Implementation and Effectiveness**	**SCD**	**Next Steps and Schedule**	**Post-Construction Monitoring Results**
p Insignificant Pathway	Stormwater treatment facility at end of outfall since 1995. Stormwater data indicates insignificant contaminant pathway. Continue City MS4 and watershed SC programs. SCE to be submitted to DEQ.	TBD	TBD	TBD	TBD	TBD	TBD	TBD

SCE [b]		SCM Selection [d]			SCM Implementation and Effectiveness			
SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results

within the shared stormwater conveyance systems is from RI Table 4.4-4 and from the DEQ ECSI database. Please note that source inventory is an ongoing process by

:ision, in the Milestone Report.

h any other AOPC.

Table 14. AOPC 14: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	SCE [b]			SCM Selection [d]			SCM Implementation and Effectivenessd			
											Status of SCE	SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Sources Adjacent to AOPC 14 [e]																				
NW Natural - "Siltronic MGP" Site	Groundwater	Bayuk	84/183	6.5W	14	**Metals** (Al, Ba, Be, Cd, Cu, Fe, Pb, Mn, Mg, Hg, Ni, K, Ag, Na, Zn), **PAHs** (naphthalene, total low PAHs), **SVOCs** (1,2-DCB, 1,4-DCB, BnOH), **Phenolic compounds** (phenol), total PCBs, **Dioxins/Furans** (dioxin TEQ, PCB TEQ, total TEQ), **Pesticides** (2,4'-DDD, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, delta-HCH, dieldrin, endrin, endrin ketone, sum DDE, total DDx), **VOCs** (chlorobenzene, chloroform), **Misc. Compounds** (carbon disulfide, perchlorate)	VOCs, SVOCs, PAHs, TPH, metals, Other (e.g., cyanide)	Gasco disposal ponds and adjacent lowland areas. Gasco disposal piles, potential Gasco waste product fill (WWTP area and Fab 1 and parking lot), potential disposal area under SE end of Fab 1. Koppers via north drainage ditch and City Outfall 22C, former Western Transportation tanks, Olympic pipeline.	High	High	Ongoing: Source Control Evaluation for Segment 3 submitted to DEQ February 2009. Supplemental shallow groundwater data being collected during MGP RI, anticipated RI submittal 1st Qtr 2011.	Complete Pathway	TBD	TBD	TBD	TBD	TBD	TBD	TBD	NA
NW Natural - "Siltronic MGP" Site	Stormwater (private outfalls)						VOCs, SVOCs, PAHs, TPH, metals, Other (e.g., cyanide)			High	Ongoing: Evaluate MGP waste & contamination in shallow soils per MGP RI work plan (10/07) with Siltronics stormwater system data. Siltronic submitted stormwater SCE report for property 9/10.	Complete Pathway	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	NA
NW Natural - "Siltronic MGP" Site	Overwater Activities						NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NW Natural - "Siltronic MGP" Site	Overland Transport						NA			NA	NA	Incomplete Pathway	NA	NA	NA	NA	NA	NA	NA	NA	NA
NW Natural - "Siltronic MGP" Site	Bank Erosion						VOCs, SVOCs, PAHs, MGP TPH, metals			TBD	Ongoing: Source Control Evaluation for Segment 3 submitted to DEQ February 2009. Supplemental shallow soil data collected during RI, anticipated RI submittal 1st Qtr 2011.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	NA

Notes: See last page of table for full list of footnotes.

Table 14. AOPC 14: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	SCE [b]			SCM Selection [d]			SCM Implementation and Effectivenessd			
											Status of SCE	SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
~~Siltronic~~	~~Groundwater~~	~~Bayuk~~	~~183~~	~~6.5W~~	~~14~~		~~VOCs, dioxins/furans, PAHs, SVOCs, metals,~~	~~Former Doane Lake including NL Gould, Schnitzer AirLiquide, ESCO and RPAC~~	~~High~~	~~TBD~~	~~Ongoing~~	~~TBD~~	~~TBD~~	~~TBD~~	~~TBD~~	~~TBD~~	~~TBD~~	~~TBD~~	~~TBD~~	~~TBD~~
Siltronic	Stormwater (Private outfall 003/WR67)	Bayuk	183	6.5W	14		Metals, VOCs, PAHs, PCBs, phthalates, TPH	TBD	High	TBD	Ongoing: Siltronic submitted stormwater SCE report 9/10	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Arkema	Groundwater	McClincy	398	7.2W	14		VOCs, Pesticides, metals, dioxin/furans, Miscellaneous compounds	Former unlined MPR pond and trench, historical discharge through pipe, unpaved areas with contaminated soils, historic spill areas, stormwater outfalls, contaminated groundwater plumes	High	High	Complete (April 2007)	Complete Pathway	Draft FFS for proposed hydraulic containment wall/system submitted May 2008. Response to EPA/DEQ comments received Sept 2008	Remedy selected by DEQ in 2009	Intermin SCMs include AS/SVE system, initiated in situ chem-ox treatment,calcium polysulfide, and in situ bio	GW containment system in design scheduled to be operational July 2012	TBD	TBD	TBD	TBD
Arkema	Stormwater (private outfalls)						Pesticides, dioxin/furans (no data but part of CSM)			High (DEQ 2010 Milestone Report)	Complete 2009	Complete Pathway	Contamination in stormwater exceeded screening levels (AWQC)	Remedy selected and memorialized in DEQ Water Quality MAO in 2010	New stormwater collection and treatment system. Interim SCMs include BMPs, surface soil removals and surface soil caps	Schedule for completion in 2010 MAO	TBD	TBD	TBD	TBD
Arkema	Overwater Activities						NA			None	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arkema	Overland Transport						See stormwater			Low	Complete (2009)	Insignificant pathway	Contamination in stormwater exceeded screening levels (AWQC)	See stormwater	See stormwater	See stormwater	TBD	TBD	TBD	TBD
Arkema	Bank Erosion	McClincy	398	7.2W	14	**Metals** (Al, Ba, Be, Cd, Cu, Fe, Pb, Mn, Mg, Hg, Ni, K, Ag, Na, Zn), **PAHs** (naphthalene, total low PAHs), **SVOCs** (1,2-DCB, 1,4-DCB, BnOH), **Phenolic compounds** (phenol), total PCBs, **Dioxins/Furans** (dioxin TEQ, PCB TEQ, total TEQ), **Pesticides** (2,4'-DDD, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, delta-HCH, dieldrin, endrin, endrin ketone, sum DDE, total DDx), **VOCs** (chlorobenzene, chloroform), **Misc. Compounds** (carbon disulfide, perchlorate)	Pesticides, dioxin/furans, metals, PCBs	Placement of dredge materials, deposition by river, historical upland operations	High	High - ~~between the docks - Low - remaining areas~~ (DEQ 7/21/2009 letter)	Completed	Complete Pathway	Riverbank contamination levels exceed action levels ~~between the docks. At or below relevant and appropriate industrial levels in the remaining bank~~ (DEQ 7/21/2009 letter)	Ongoing	Review of riverbank remedial alternatives to be coordinated with EPA	TBD	TBD	TBD	TBD	TBD
Rhone Poulenc	Groundwater						VOCs, SVOCs, TPH, pesticides, metals, phthalates, dioxin/furans	Former insecticide, herbicide, ~~lake~~ areas, former Doane Lake sediment footprint (including NL-Gould, Schnitzer-AirLiquide, ESCO)		pHigh	Ongoing (completion estimated for 9/10)	Complete Pathway ~~for VOCs, herbicides and metals~~	TBD ~~Waiting for SCE and Alternatives Analysis~~	TBD	Interim measures pilot study Underway 2010	TBD	TBD	TBD	TBD	TBD

Table 14. AOPC 14: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	SCE [b]			SCM Selection [d]			SCM Implementation and Effectivenessd			
											Status of SCE	SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Rhone Poulenc	Stormwater	Lacey	155	7W	14		VOCs, SVOCs, pesticides, metals, phthalates, dioxin/furans	Insecticide Area, herbicide area, ~~Highway 30 runoff and BNSF runoff~~	p High	pMed ~~None~~	Ongoing (completion estimated for 9/10) ~~NA~~	TBD ~~Incomplete Pathway - all stormwater collected and treated prior to discharge in compliance with existing NPDES Permit.~~	TBD ~~NA~~	TBD ~~NA~~	TBD ~~NA~~	TBD ~~NA~~	TBD ~~NA~~	TBD ~~NA~~	TBD ~~NA~~	TBD ~~NA~~
Rhone Poulenc	~~Stormwater (~~NPDES permit~~)~~						VOCs, SVOCs, pesticides, metals, phthalates, dioxin/furans	Insecticide Area, herbicide area, ~~Highway 30 runoff and BNSF runoff~~		pLow ~~None~~	Ongoing (completion estimated for 9/10) ~~NA~~	TBD ~~Incomplete Pathway - all stormwater collected and treated prior to discharge in compliance with existing NPDES Permit.~~	TBD ~~NA~~	TBD ~~NA~~	TBD ~~NA~~	TBD ~~NA~~	TBD ~~Incomplete Pathway - all stormwater collected and treated prior to discharge in compliance with existing NPDES Permit.~~	TBD ~~NA~~	TBD ~~NA~~	TBD ~~All monitoring results comply with permit requirements~~
Rhone Poulenc	Overwater						NA	Former insecticide, herbicide and lake areas, former Doane Lake sediment footprint ~~containing wastes discharged from~~ (including NL-Gould, Schnitzer-AirLiquide, and ESCO~~)~~		None	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Rhone Poulenc	Overland Transport						NA			None	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes: See last page of table for full list of footnotes.

Table 14. AOPC 14: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	SCE [b]			SCM Selection [d]			SCM Implementation and Effectivenessd			
											Status of SCE	SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Rhone Poulenc	Bank Erosion	Lacey	155	7W	14	**Metals** (Al, Ba, Be, Cd, Cu, Fe, Pb, Mn, Mg, Hg, Ni, K, Ag, Na, Zn), **PAHs** (naphthalene, total low PAHs), **SVOCs** (1,2-DCB, 1,4-DCB, BnOH), **Phenolic compounds** (phenol), total PCBs, **Dioxins/Furans** (dioxin TEQ, PCB TEQ, total TEQ), **Pesticides** (2,4'-DDD, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, delta-HCH, dieldrin, endrin, endrin ketone, sum DDE, total DDx), **VOCs** (chlorobenzene, chloroform), **Misc. Compounds** (carbon disulfide, perchlorate)	NA	Former insecticide, ~~and~~ herbicide~~, areas~~ and lake area, former Doane Lake sediment footprint ~~containing wastes discharged from~~ (including NL-Gould, Schnitzer-AirLiquide and ESCO) ~~(AMEC 2010)~~	p High	None	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Rhone Poulenc	Historical Drain Ditch						VOCs, SVOCs, pesticides, metals, phthalates, dioxin/furans	Former insecticide ~~and~~ herbicide and lake areas, former Doane Lake sediment footprint (including NL-Gould, Schnitzer-AirLiquide, ESCO)	p High	p Low	Ongoing (completion estimated for 9/10)	TBD	TBD	TBD	TBD-SLLI has proposed interim measure (installation of back flow preventer to prevent inflow of water from River under extreme flood events) ~~scheduled for August 2010~~	TBD	TBD	TBD	TBD	TBD
GS Roofing	Groundwater	Thiessen	117	3.6E	14		VOCs, SVOCs, TPH, metals	Facility operations, former USTs, storm sewer catch basins/drains, and overwater separators, former wastewater discharge, landfilled materials, railroad spur, finished products storage area	pLow (DEQ PM)	TBD	WP in progress Oct. 2010 (DEQ PM)	TBD	Waiting on SCE to be completed	TBD	TBD	TBD	TBD	TBD	TBD	TBD
GS Roofing	Stormwater (private outfalls)						VOCs, PAHs, TPH, metals			pLow (DEQ PM)	SW SCE anticipated 4Q2010 (DEQ PM)	TBD	Waiting on SCE to be completed	BMPs (DEQ PM)	TBD	TBD	TBD	TBD	TBD	TBD
GS Roofing	Overwater Activities						NA			None	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GS Roofing	Overland Transport						NS			pLow (DEQ PM)	Ongoing (3Q2010) (DEQ PM)	TBD	Waiting on SCE to be completed	TBD	TBD	TBD	TBD	TBD	TBD	TBD
GS Roofing	Bank Erosion						NS			TBD	WP in progress Oct. 2010 (DEQ PM)	TBD	Waiting on SCE to be completed	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Willbridge Bulk Fuel Facility	Groundwater	Romero	1549	7.7W	14		VOCs, PAHs, TPH, metals, phthalates	ConocoPhillips, Chevron, and Kinder Morgan bulk terminals and dock operations are in AOPC 16	High	High	Ongoing (SCE for GW anticipated to be completed in Summer 2011)	TBD	TBD	Ongoing. Various SCMs have already been implemented prior to finalization of the SCE	Product recovery and hydraulic containment for shallow GW (sheet pile wall). Effectiveness monitoring ongoing.	Complete SCE	TBD	TBD	Complete SCE	TBD
Willbridge Bulk Fuel Facility	Stormwater (private outfalls)						VOCs, PAHs, TPH, pest/herb, metals, phthalates			High	Ongoing (SCE for SW anticipated to be completed in Summer 2011)	TBD	TBD	Ongoing. Various SCMs have already been implemented prior to finalization of the SCE	Leaking stormwater conveyance system was repaired in August 2009 (OF22) to stop GW infiltration at Conoco. KM conducted repair of lined channel (Saltzman Creek).	Complete SCE	TBD	TBD	Complete SCE	TBD
Willbridge Bulk Fuel Facility	Overwater						VOCs, PAHs, TPH, metals			None	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Willbridge Bulk Fuel Facility	Overland Transport						NS			None	Addressed in Stormwater SCE	TBD	TBD	SCMs may not be needed	NA	NA	NA	NA	NA	NA

Table 14. AOPC 14: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	SCE [b]			SCM Selection [d]			SCM Implementation and Effectivenessd			
											Status of SCE	SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results

Notes: See last page of table for full list of footnotes.

Table 14. AOPC 14: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	SCE [b]			SCM Selection [d]			SCM Implementation and Effectivenessd			
											Status of SCE	SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Willbridge Bulk Fuel Facility	Bank Erosion	Romero	1549	7.7W	14	**Metals** (Al, Ba, Be, Cd, Cu, Fe, Pb, Mn, Mg, Hg, Ni, K, Ag, Na, Zn), **PAHs** (naphthalene, total low PAHs), **SVOCs** (1,2-DCB, 1,4-DCB, BnOH), **Phenolic compounds** (phenol), **total PCBs**, **Dioxins/Furans** (dioxin TEQ, PCB TEQ, total TEQ), **Pesticides** (2,4'-DDD, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, delta-HCH, dieldrin, endrin, endrin ketone, sum DDE, total DDx), **VOCs** (chlorobenzene, chloroform), **Misc. Compounds** (carbon disulfide, perchlorate)	PAHs, pest/herb, metals	ConocoPhillips, Chevron, and Kinder Morgan bulk terminals and dock operations are in AOPC 16	High	Low	Assessment Report submitted February 27, 2008	TBD	TBD	SCMs may not be needed	TBD	TBD	TBD	TBD	TBD	TBD
Shared Conveyance Systems																				
OF22B	Stormwater	Tarnow	2425	6.9W	14	**Metals** (Al, Ba, Be, Cd, Cu, Fe, Pb, Mn, Mg, Hg, Ni, K, Ag, Na, Zn), **PAHs** (naphthalene, total low PAHs), **SVOCs** (1,2-DCB, 1,4-DCB, BnOH), **Phenolic compounds** (phenol), **total PCBs**, **Dioxins/Furans** (dioxin TEQ, PCB TEQ, total TEQ), **Pesticides** (2,4'-DDD, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, delta-HCH, dieldrin, endrin, endrin ketone, sum DDE, total DDx), **VOCs** (chlorobenzene, chloroform), **Misc. Compounds** (carbon disulfide, perchlorate)	PCBs, BEHP, pest/herb, arsenic, cadmium, copper (City of Portland 2010)	Drains 32 acres of heavy industry (9 acres have been remediated at Gould). See below for identified sources.	Medium	p Medium	p Complete (2010)	p Complete Pathway	Source tracing complete. Infiltration of contaminated groundwater detected in the City lines and in site storm lines (see below). Two additional sites identified as stormwater sources; all sites in basin in DEQ or EPA cleanup programs (see below for site findings).	p Complete	City cleaned out legacy solids in City system downstream of remediated site (City of Portland 2008). BMP implementation through two 1200Z permits. SCMs being implemented by ECSI sites, including cleaning of City lines and lining of the City and Site systems to prevent contaminated GW infiltration (see below).	Once sites have completed SCEs, City will prepare RI/SCM document	Continue City MS4 and watershed SC programs to improve stormwater quality	TBD	TBD	TBD

Notes: See last page of table for full list of footnotes.

Table 14. AOPC 14: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	SCE [b]			SCM Selection [d]			SCM Implementation and Effectivenessd			
											Status of SCE	SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Gould Inc./NL Industries Inc.	Stormwater	Kent (EPA Lead Site-Humphrey)	49	7.5W	14	**Metals** (Al, Ba, Be, Cd, Cu, Fe, Pb, Mn, Mg, Hg, Ni, K, Ag, Na, Zn), **PAHs** (naphthalene, total low PAHs), **SVOCs** (1,2-DCB, 1,4-DCB, BnOH), **Phenolic compounds** (phenol), **total PCBs**, **Dioxins/Furans** (dioxin TEQ, PCB TEQ, total TEQ), **Pesticides** (2,4'-DDD, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, delta-HCH, dieldrin, endrin, endrin ketone, sum DDE, total DDx), **VOCs** (chlorobenzene, chloroform), **Misc. Compounds** (carbon disulfide, perchlorate)	NL/Gould Site Specific COIs - metals, sulfuric acid; 22B General COIs-VOC, SVOCs, pesticides, metals, PCBs, dioxins/furans	EPA-led Superfund cleanup completed in 2000, including construction of an Onsite Containment Facility (OCF) and OandM requirements. OCF is capped with clean fill and vegetation to prevent stormwater exposure to contaminants. A no-action ROD issued by EPA in 2000 for groundwater but contaminated groundwater was found to be infiltrating into storm lines in 2005. Pipe lining underway to control this pathway. EPA Action was not designed to address all COIs at current levels of concern, and did not address all NL-Gould waste materials in former Doane Lake.	Low	Low	Complete (2000)	Insignificant pathway	Current discharge insignficant, no actions recommended	Complete	1) Contaminated soil removal and containment (landfill); 2) Sediment removal; 3) RCRA waste containment; 4) Removed waste pond 5) OandM ongoing	Source of inline solids containing PCBs, herbicides, etc. needs to be determined and verification monitoring is needed to verify system lining effectively controls sources.	TBD	TBD (Verify NFA)	TBD	TBD
Gould Inc./NL Industries Inc.	Groundwater Infiltration/ City Storm Sewer[g]						NL/Gould Site Specific COIs - metals; 22B General COIs-VOC, SVOCs, pesticides, metals, PCBs, dioxins/furans			None	Complete (2005) (City of Portland 2005)	Compete Pathway	In 2005, dry weather sampling detected metals, pesticides, SVOCs and a VOC	Complete	Lining of onsite storm system to be completed in 2010 to make this an incomplete pathway.	Monitoring to be performed to demonstrate groundwater pathway controlled.	TBD	NA	NA	NA
Schnitzer Investment–Doane Lake (Air Liquide)	Stormwater	Lacey	395	7.2W	14		SIC-Doane Lake Specific COIs - Calcium hydroxide, VOCs, SVOCs, metals, PCBs; General 22B COIS - VOC, SVOCs, pesticides, metals, PCBs, dioxins/furans	Former discharge of calcium hydroxide into Doane Lake, former acetone UST, unknown source of subsurface contamination, compressor oil spill, auto fluff burial onsite	pMed	TBD	Ongoing (anticipated 2011)	Complete Pathway	Stormwater investigation in progress	TBD	TBD	Source of inline solids containing PCBs, herbicides, etc. needs to be determined and verification monitoring is needed to verify system lining effectively controls sources.	TBD	TBD	TBD	TBD
Schnitzer Investment–Doane Lake (Air Liquide)	Groundwater Infiltration/ City Storm Sewer[g]						SIC-Doane Lake Specific COIs - Calcium hydroxide, VOCs, SVOCs, metals, PCBs; General 22B COIS - VOC, SVOCs, pesticides, metals, PCBs, dioxins/furans			TBD	Ongoing (anticipated 3rd Qtr 2010)	Complete Pathway	Groundwater infiltration identified in pipes. Pipes to be lined.	Complete	Lining of onsite storm system to be completed in 2010 to make this an incomplete pathway.	Monitoring to be performed to demonstrate groundwater pathway controlled.	TBD	NA	NA	NA

Notes: See last page of table for full list of footnotes.

Table 14. AOPC 14: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	SCE [b]			SCM Selection [d]			SCM Implementation and Effectivenessd			
											Status of SCE	SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Rhone Poulenc	Groundwater Infiltration/ City Storm Sewer[g]	Lacey	155	7.0W	14	**Metals** (Al, Ba, Be, Cd, Cu, Fe, Pb, Mn, Mg, Hg, Ni, K, Ag, Na, Zn)**, PAHs** (naphthalene, total low PAHs)**, SVOCs** (1,2-DCB, 1,4-DCB, BnOH)**, Phenolic compounds** (phenol)**, total PCBs, Dioxins/Furans** (dioxin TEQ, PCB TEQ, total TEQ)**, Pesticides** (2,4'-DDD, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, delta-HCH, dieldrin, endrin, endrin ketone, sum DDE, total DDx)**, VOCs** (chlorobenzene, chloroform)**, Misc. Compounds** (carbon disulfide, perchlorate)	RP specific COIs- VOCs, SVOCs, pesticides, metals, dioxin/furans; General 22B COIs - VOC, SVOCs, pesticides, metals, PCBs, dioxins/furans	Former insecticide~~, and~~ herbicide, and lake areas, former Doane Lake sediment ~~lake area~~ (including NL Gould, Schnizer, Air Liquide, ESCO)	p High	p High	Ongoing (anticipated September 2010)	Complete Pathway	~~Interim SCE - Complete~~ interim SCM in progress	Complete	Interim SCM to stormwater line to prevent GW infiltration; effectiveness monitoring ongoing	TBD	TBD	TBD	TBD	TBD
Metro Central Transfer Sta.	Stormwater	Lacey	1398	7.2W	14		Metro specific COIs - VOCs, SVOCs, pesticides, metals, PCBs; General 22B COIs - VOCs, SVOCs, pesticide, metals, dioxin/furans, PCBs ~~(AMEC 2010)~~	Current garbage transfer station, historical warehouse operations, and groundwater contamination including other sites.	p Med	p Medium	Ongoing (anticipated 2011)	Complete Pathway	Stormwater investigation in progress	TBD	TBD	Source of inline solids containing PCBs, herbicides, etc. needs to be determined and verification monitoring is needed to verify system lining effectively controls sources.	TBD	TBD	TBD	TBD
Metro Central Transfer Sta.	Groundwater Infiltration/ City Storm Sewer[g]						Metro specific COIs - VOCs, SVOCs, pesticides, metals, PCBs; General 22B COIs - VOCs, SVOCs, pesticide, metals, dioxin/furans, PCBs ~~(AMEC 2010)~~			TBD	Ongoing (anticipated 2011)	Complete Pathway	Groundwater infiltration identified in pipes. Pipes to be lined.	Complete	Lining of onsite storm system to be completed in 2010 to make this an incomplete pathway.	Monitoring to be performed to demonstrate groundwater pathway controlled.	TBD	TBD	TBD	TBD
OF22C	Stormwater	Tarnow	2425	6.8W	14		None for stormwater (City of Portland 2010). PAHs for groundwater infiltration (Hahn 2006)	Drains 62 acres heavy industry, 10 acres major transportation and 4 acres residential. Most of industrially-zoned land is undeveloped (e.g., North Doane Lake). See below for identified sources	Medium	p Medium	p Complete (2010)	p Complete Pathway	Upland PAH sources identified (see below for site findings).	p Complete	Source tracing complete. Line cleaning adjacent to one site (high PAHs); stormwater from this site diverted to sanitary (see below). Waiting for GW infiltration evaluation and North Doane lake evaluation from upland sites (see below)	Once sites have completed SCEs, City will prepare RI/SCM document	Continue City MS4 and watershed SC programs to improve stormwater quality	TBD	TBD	TBD
Santa Fe Pacific Pipeline	Stormwater	Greenberg	2104	6.8W	14		None	Containment area at the SFPP site												

Notes: See last page of table for full list of footnotes.

Table 14. AOPC 14: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	SCE [b]			SCM Selection [d]			SCM Implementation and Effectivenessd			
											Status of SCE	SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
NW Natural - "Siltronic MGP" Site	Other - Doane Creek	Bayuk	84/183	6.5W	14	**Metals** (Al, Ba, Be, Cd, Cu, Fe, Pb, Mn, Mg, Hg, Ni, K, Ag, Na, Zn), **PAHs** (naphthalene, total low PAHs), **SVOCs** (1,2-DCB, 1,4-DCB, BnOH), **Phenolic compounds** (phenol), **total PCBs**, **Dioxins/Furans** (dioxin TEQ, PCB TEQ, total TEQ), **Pesticides** (2,4'-DDD, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, delta-HCH, dieldrin, endrin, endrin ketone, sum DDE, total DDx), **VOCs** (chlorobenzene, chloroform), **Misc. Compounds** (carbon disulfide, perchlorate)	VOCs, SVOCs, PAHs, MGP TPH, metals, Other (e.g., cyanide)	Gasco disposal ponds and adjacent lowland areas. Gasco disposal piles, potential Gasco waster product fill (WWTP area and Fab 1 and parking lot), potential disposal area under SE end of Fab 1, former Western Transportation tanks, Olympic pipeline.	TBD	TBD	Ongoing. Sampling of embankment soil, sediment, and surface water in Doane Creek is occurring under the ongoing RI, with results of all but seasonal surface water sampling to be presented in RI Report, anticipated submittal 1Q11. Surface water sampling (seasonal) is anticipated to be complete and reported by 3Q11.	Complete Pathway	TBD	TBD	Investigate COI contributions to Doane Creek and City's OF-22C per Siltronic MGP Site RI work plan (DEQ 2009b). Creek water samples and soils samples will be taken. Expect results in 1Q2011(Hahn 2007)	TBD	TBD	TBD	TBD	NA
NW Natural - "Siltronic MGP" Site	Groundwater Infiltration/ City Storm Sewer						VOCs, SVOCs, PAHs, MGP TPH, metals, Other (e.g., cyanide)		TBD	TBD	Ongoing: Sampling of shallow groundwater and surface water near and in Doane Creek is occurring per the MGP RI. Except for seasonal sampling, results to be presented in MGP RI Report, anticipated submittal 1st Qtr 2011. Surface water sampling (seasonal) anticipated to be complete and reported by 3rd Qtr 2011.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
NW Natural "Gasco" Site Koppers Industries	Stormwater - Koppers NPDES Permit	Bayuk	2348	6.5W	14		VOCs, SVOCs, PAHs, TPH, metals, Other (e.g., cyanide)	Former retort area, former tar processing area, former light oil plant Kopper Co. Plan/Current KI tank farm, former naphthalene plant, former coke oven area, former pitch plant/tar loading area, former tar settling ponds, former Kopper Co./current KI pencil pitch storage area	TBD	TBD	NA: there are no current discharges to Doane Creek under the Koppers NPDES permit.	Complete Pathway	Koppers discontinued discharge to Doane Creek via the NPDES permit and currently discharges to the City of Portland sanitary sewer under a POTW permit.	NA	NA	NA	NA	NA	NA	NA

Table 14. AOPC 14: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	SCE [b]			SCM Selection [d]			SCM Implementation and Effectivenessd			
											Status of SCE	SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
Rhone Poulenc	Drainage from N. Doane Lake	Lacey	155	7.0W	14		RP specific COIs VOCs, SVOCs, metals, pesticides, dioxin/furans, PCBs; General 22C COIs - VOC, SVOCs, pesticides, metals, dioxins/furans, PCBs	Ongoing evaluation of sources including, but not limited to, historical upland activities and operations that have impacted groundwater (e.g., the former insecticide and herbicide areas), and evaluation of potential 3rd party contributors (either with direct or indirect	p High	p-low	Ongoing (anticipated 9/10)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Siltronic	Stormwater runoff to OF 22C	Bayuk	183	6.6W	14		VOCs, SVOCs, PAHs, TPH, metals, phthalates	TBD	High	TBD	Ongoing: Siltronic submitted stormwater SCE report 9/10.	TDB	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

Notes: See last page of table for full list of footnotes.

St Helens Road Petroleum	Stormwater	Unassigned	2630	7.3W	14	**Metals** (Al, Ba, Be, Cd, Cu, Fe, Pb, Mn, Mg, Hg, Ni, K, Ag, Na, Zn), **PAHs** (naphthalene, total low PAHs), **SVOCs** (1,2-DCB, 1,4-DCB, BnOH), **Phenolic compounds** (phenol), **total PCBs**, **Dioxins/Furans** (dioxin TEQ, PCB TEQ, total TEQ), **Pesticides** (2,4'-DDD, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, delta-HCH, dieldrin, endrin, endrin ketone, sum DDE, total DDx), **VOCs** (chlorobenzene, chloroform), **Misc. Compounds** (carbon disulfide, perchlorate)	None	Petroleum-contaminated soil and groundwater	Not tracked in Milestone Report. Subsurface contamination under St Helens Road found between NW Saltzman and NW 84th. No stormwater exposure to contamination.									
V&K Services	Stormwater	Unassigned	2423	7.3W	14		VOCs, TPH	Possible use of facility drains to dispose of used oil, antifreeze and brake fluid	Not tracked in Milestone Report [additional info requested]											
Saltzman's Creek	Stormwater	NA	NA	7.6W	14		?	1,076 acres (open space and heavy industrial, small % of highway and residential)	TBD	TBD	Ongoing evaluation at 2 ECSI sites; DEQ also collected sediment samples from creek bed/delta Oct 2010)	Complete, priority varies among basins	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
St Helens Road Petroleum	Stormwater	Unassigned	2630	7.3W	14		None	Petroleum-contaminated soil and groundwater	Not tracked in Milestone Report. Subsurface contamination under St Helens Road found between NW Saltzman and NW 84th. No stormwater exposure to contamination.											
GS Roofing	Stormwater	Theissen	117	7.5W	14		VOCs, PAHs, TPH, metals, pesticides (Forensic 2009)	Facility operations, former USTs, storm sewer catch basins/drains, and overwater separators, former wastewater discharge, landfilled materials, railroad spur, finished products storage area	TBD	pLow Completed SW SCE anticipated 4Q2010 (DEQ PM)	TBD	Waiting on completed SW SCE to be submitted (DEQ PM)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

Table 14. AOPC 14: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	SCE [b]			SCM Selection [d]			SCM Implementation and Effectivenessd			
											Status of SCE	SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results
V&K Services	Stormwater	Fortuna	2423	7.3W	14		VOCs, TPH	Possible use of facility drains to dispose of used oil, antifreeze and brake fluid	Not tracked in Milestone Report [additional info requested]											
Kinder Morgan	Stormwater	Romero	1549	7.7W	14		VOCs, PAHs, TPH, metals	Petroleum fuel storage areas, dock operations	p High	TBD (waiting for SCE to be completed)	Ongoing (anticipated 2nd Qtr. 2011)	TBD	Investigating KM SCE in conjunction with DEQ overall Saltzman Creek drainage evaluation	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Sources Upstream of AOPC 14 [e]																				
Willbridge	See AOPC #16	Romero	1549																	

Notes: See last page of table for full list of footnotes.

Table 14. AOPC 14: Status of Adjacent or Immediately Upstream Current Ongoing and Potentially Ongoing Upland and Overwater Sources [a]

Site Name	Potential Contaminant Migration Pathway	DEQ PM	ECSI #	River Mile	AOPC	AOPC COIs	Upland and Overwater COIs	Potential Upland and Overwater Sources	Site Priority Level	Initial Pathway Priority Level	SCE [b]			SCM Selection [d]			SCM Implementation and Effectivenessd			
											Status of SCE	SCD [c]	SCE Findings and Next Steps	Status of SCM Selection	SCD	Next Steps and Schedule	Status of SCM Implementation and Effectiveness	SCD	Next Steps and Schedule	Post-Construction Monitoring Results

Notes:

[a] The information contained in this table is based on information obtained by LWG from correspondence with DEQ project managers and from reports in DEQ files as of ____ 2010. Information on sites upriver of RM 11 and sites within the shared stormwater co

[b] SCE = Source Control Evaluation. This is the first step in DEQ's source evaluation process. The status of an SCE is either complete, ongoing, not started, TBD, or NA (for a pathway that is not applicable).

[c] SCD = Source Control Decision. DEQ provides EPA and its partners an opportunity to review (but not approve or disapprove) the DEQ SCD; the status of this review is described in the column, Status of EPA Review of SCE Decision, in the Milestone Report.

[d] SCM = Source Control Measures. The final step in the source evaluation process; the implementation status of the SCMs is either complete, ongoing, not started, TBD, or NA.

[e] Adjacent sites are those with potential sources/pathways that are immediately adjacent to the reference AOPC, and upstream sites are those potential sources/pathways that are upstream of the reference AOPC and not reference with any other AOPC.

[f] This pathway is included for ECSI sites that have groundwater infiltration into the City storm sewer. For sites without this pathway, assume there is no groundwater infiltration into the City storm sewer.

p = DEQ's preliminary pathway determination

? = Unknown, typically due to lack of sampling information

Italicized cells indicate upland sites within current or former CSO basins. Non-italicized text indicates upland sites within stormwater basins.

Grey shading indicates shared conveyances.

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Acronyms:

AOC = Administrative Order of Consent
AOPC = area of potential concern
AS/SVE = air sparging/soil vapor extraction
AST = aboveground storage tank
BEHP = bis-2-(ethylhexyl) phthalate
BMP = best management practices
BnOH = benzyl alcohol
COI = chemical of interest
CSO = combined sewer overflow
DEQ = Oregon Department Of Environmental Quality
DNAPL = dense non-aqueous phase liquid
ECSI = Environmental Cleanup Site Inventory
EE/CA = engineering evaluation/cost analysis
EIB = in situ bioremediation
EPA = Environmental Protection Agency
FS = feasibility study
GRH = gasoline-range hydrocarbon
GW = groundwater
JSCS = Joint Source Control Strategy
MS4 = municipal separate storm sewer systems
NA = not applicable
NAPL = non-aqueous phase liquid
NFA = no further action
NPDES = National Pollutant Discharge Elimination System
NS = no sampling of upland COIs reported. For stormwater/wastewater, no sampling beyond permit requirements reported.
ODOT = Oregon Department Of Transportation
OERS = Oregon Emergency Response System
PAH = polycyclic aromatic hydrocarbon
PCB = polyclorinated biphenyl
PM = project manager
POTW = publicly owned treatment works
PPA = Prospective Purchaser Agreement
RI = remedial investigation
ROD = record of decision
RP = responsible party
SVOC = semivolatile organic compound
SW = stormwater
SWPCP = stormwater pollution control plan
TBT - tributyl tin
TCE = trichloroethene
TPH = total petroleum hydrocarbon
UIC = underground injection control
UST = underground storage tank
VOC = volatile organic compound
XPA = expanded preliminary assessment